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Educating for the 'Anthropocene':

The Meaning of Politics in an Age of Slow Violence

Peter Sutoris

Clare Hall

This dissertation is submitted for the degree Doctor of Philosophy

Submitted: September 2019

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Abstract

This multi-sited ethnographic study examines the interface of education and environmental activism in spaces affected by the slow violence of environmental degradation, characteristic of the current high 'Anthropocene' era. By conducting research at government schools and in their surrounding communities in Pashulok, India, and South Durban, South Africa, this study investigates the impacts of schooling and environmental activist movements on young people's 'phenomenologies of meaning-making' about the environment. Building on the work of Ricœur and Arendt, the theoretical framework illuminates the role of historical responsibility, intergenerational justice and political imagination in shaping young people's understandings of and responses to the slow violence affecting their communities locally and the planet globally. This framework is operationalised through established ethnographic methods, including observation, semi-structured and unstructured interviews, focus groups, a fieldwork diary, and through an innovative intervention of observational filmmaking workshops conducted with young people in both sites. The findings point to the depoliticising and individualising effects that bureaucratised state-run education systems in both India and South Africa have on young people's political and environmental imaginaries, specifically in relation to action and change. They suggest further that young people recognise this slow violence impacting on the environment and have ideas about the political transformation needed to achieve an environmentally sustainable future. These alternative imaginaries are in some cases shaped by the activist presence in the community, as well as educators who intentionally subvert the curriculum. Environmental activists in Pashulok and Wentworth strive to expand what Ricœur calls the 'horizons of the possible' and to foster pluralistic political action in the process of community deliberation. The study argues that educating in the Anthropocene calls for bridging schooling with elements of activism to develop what Arendt refers to as agonistic pluralism, which is necessary for finding answers to the slow violence of the Anthropocene.

Keywords: education; the Anthropocene; activism; phenomenological analysis; ethnography

We learn from history that we do not learn from history.

— Hegel

Some have said that my father was ahead of his time,
but the truth is he was on time and perhaps we were late.

— Attallah Shabazz in the foreword to The Autobiography of Malcolm X (2015, p. 11)

Figure 1: Tree, water and smokestacks, Durban, 2017

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The participants in this study are too many to list; many are anonymised. The staff and students at Seema Primary (a pseudonym for the school in India where I undertook my research) and Durban South Primary (a pseudonym for its South African counterpart) welcomed me into their communities and shared life-changing perspectives and insights, and for this I cannot thank them enough. Environmental activists working with the South Durban Environmental Community Alliance—in particular Des D'Sa and Bongani Mthembu—and their colleagues at groundWork Bobby Peek and Rico Euripidou, as well as anti-dam activists in Pashulok and other activist figures in India and South Africa, including Medha Patkar, Oupa Lehulere, Patrick Mkhize and Chris Albertyn, generously shared their time and experience with me. Scholars, journalists and artists in both countries, including Ramachandra Guha and Mahesh Rangarajan, provided important insights that helped me contextualise my research.

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Cambridge, September 2019

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List of Abbreviations

ANC	African National Congress
ASER	Annual Status of Education Report
BEE	Black Economic Empowerment
BJP	*Bharatiya Janata Party* (Indian People's Party)
CAPS	Curriculum Assessment Policy Statements
CEE	Centre for Environment Education
DA	Democratic Alliance
EE	Environmental Education
ENVS	Environmental Studies
ESD	Education for Sustainable Development
ESE	Environmental and Sustainability Education
GDP	Gross Domestic Product
HAPIC	Hyde and Aragon Park Improvement Committee
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome
INC	Indian National Congress
IPCC	Intergovernmental Panel on Climate Change
LO	Life Orientation
MK	*Umkhonto we Sizwe* (Spear of the Nation)
NCERT	National Council of Educational Research and Training
NGO	Non-governmental organisation
PCN	*Proceso de Comunidades Negras* (Black Communities Process)
PIRLS	Progress in International Reading Literacy Study
RSS	*Rashtriya Swayamsevak Sangh* (National Volunteer Association)
SDCEA	South Durban Community Environment Alliance
SDG	Sustainable Development Goal
TBVSS	*Tehri Bandh Virodhi Sangharsh Samiti* (Tehri Dam Opposing Struggle Committee)
THDC	Tehri Hydro-Power Corporation
TNC	Trans-national Corporation
TRC	Truth and Reconciliation Commission
UKZN	University of KwaZulu-Natal
UCIL	Union Carbide India Limited
UCT	University of Cape Town
UDF	United Democratic Front
UN	United Nations
UNESCO	United Nations Educational, Cultural and Scientific Organization
WESSA	Wildlife and Environment Society of South Africa

Part One

Learning to Live in the Anthropocene

Figure 2: Mpophomeni Township, Eastern Cape, South Africa, 2016

Dilemma One

The Shock of Recognition: (De)Politicising Education

It was May 2016 in South Africa, a beautiful autumn day in a township near Grahamstown, and children were outside learning about planting saplings during their science lesson. The teacher, Helen, came across as kind and warm-hearted and clearly knew what she was talking about. She seemed to command respect without shouting or hitting students—which was common practice in other South African township schools I visited. Her face, lined with wrinkles, wore a constant smile as she moved seamlessly from student to student. Her rapport with each of them was nothing short of amazing. After the class, she proudly showed me the different products her students had made from recycled materials—the colourful doormats made of bits of plastic bags (Fig. 3) were lodged firmly in my memory; I thought they were beautiful.

I felt myself becoming somewhat of a convert to the hands-on environmental education I had just witnessed, but my view turned around completely by the time I finished interviewing Helen. 'Do you ever connect planting trees to climate change in your classes?' I asked. She gave me a pained look, and I detected a pinch of amazement at my ignorance. 'The students would not be able to follow. They are just cognitively not there'. I gasped. Suddenly I saw everything in a different light. This white teacher in a black school seemed to be implying that black township children were unable to understand the concept of global warming. How could she express such thoughts? My thinking took another turn: Those plastic mats were not about empowerment but about giving the kids the skills to become 'petty entrepreneurs' who live on the precarious edge of poverty, collecting crumbs from the table of South Africa's racialised neoliberal capitalism. And that fun, engaging lesson I had witnessed? It clearly was a way to make the black children feel that they were doing their bit: 'Go and plant your tree and be proud that you are addressing the environmental mess we are in. Don't bother asking questions about what the mess is or how we got into it, who is responsible, how we can get out of it. Don't bother being a citizen, a political agent of change. Just plant your tree'. Racism, paternalism, hands-on environmental education, apartheid: they all seemed synonymous to me as I walked out of the tool shed where we were talking.

Figure 3: Mats made in a classroom from recycled plastic, Grahamstown[1]

Embarking on my doctorate seven months earlier, I did not expect my research to involve saplings in South African townships. I entered the program with what I thought was a clear agenda. Perhaps I had not understood the expansiveness of ethnography or its forms that give visibility and life to both the macro and micro-elements of the everyday, particularly something so vividly omnipresent as the 'environment'. Having spent the previous four years working in international development, I had a hypothesis, or perhaps a hunch, that the development project often fails because of bad scaling decisions. When local programmes implemented by small organisations are scaled up across regions, countries and continents, I reasoned, the decisions are usually based on economic parameters like cost-effectiveness rather than by considering what I came to call the 'cultural and political landscapes of

[1] Unless otherwise stated, I am the author of the photographs and pictures in this thesis.

scalability' (Sutoris, 2018b). I therefore strived to build a theory that would apply the tools of anthropology to scaling-up development programmes, both to help make decisions leading to more effective scaling and to raise questions about the legitimacy of some of these decisions. Certain programmes, after all, should not be scaled, either because their ethics are questionable or their effectiveness is constrained to specific, local contexts. This was an ambitious task, and I could not imagine coming up with such a theory by spending my doctoral years inside a library; I needed a rich case study to ground, test, refine and challenge my ideas.

I decided to focus on Education for Sustainable Development (ESD) interventions. This seemed topical, and I believed that its three constituent concepts—education, sustainability and development—were sufficiently culturally and politically 'loaded' to make for a rich ethnographic study.[2] *I chose to study 'handprint', an ESD approach (or, rather, a form of Environmental and Sustainability Education, or ESE),*[3] *that sought to empower students to 'use their hands' in making a tangible contribution to the sustainability of their communities, rather than focusing on the environmental 'footprint'.*[4] *This idea originated in Bangalore, India, spread across the country after being picked up by the Ahmedabad-based Centre for*

[2] While this may have been true, finding a suitable ESD intervention proved much harder than expected. After reading stacks of UNESCO's reports on the Decade of ESD (DESD) of 2005-15 (Mula & Tilbury, 2009; Nolan, 2012) and spending days searching online, I still could not identify a concrete intervention that had been scaled up and started wondering if ESD had any material manifestations in the real world or whether it was 'just another bullshit development catchphrase', as I put it to my friends at the time. In the end, a colleague introduced me to a researcher based at the Earth Institute at Columbia, who suggested that I speak to Kartikeya Sarabhai, the director of the India-based Centre for Environment Education (CEE), an organisation that promoted the 'handprint' approach that became my initial research subject. He has published extensively on ESE; see, e.g., Sarabhai (2009).

[3] ESD refers to educational programmes and approaches promoting sustainable development, but not all programmes that are concerned with the environment or environmental sustainability would fall into this category. Another group of interventions is linked to the notion of Environmental Education (EE), and these usually refer to programmes that make use of the physical environment in which education takes place. The term ESE incorporates both ESD and EE research and practice, as well as approaches that may not fit into either the ESD or EE paradigm but are related to environmental or sustainability concerns. In this thesis, I will use the term ESE to denote formal education interventions designed to address any aspect of the natural environment or sustainability, as these are all relevant to the concept of 'educating for the Anthropocene' I develop in this thesis.

[4] According to CEE, handprint originated in 2005 in the Indian state of Andhra Pradesh, where 'young students in primary schools often questioned why environmental issues were usually presented in terms of problems and negative aspects like environmental destruction and degradation' (P. Sharma & Gregory, 2015, p. 1). Handprint seeks to offer a departure from this model in the form of a project-based, learner-centred approach that shifts the focus away from 'doom and gloom' ESD (Bangay, 2016). CEE claims that 'the handprint concept captures the energy which young people saw in themselves and their desire to do things for a better future' (P. Sharma & Gregory, 2015, p. 1).

Environment Education (CEE), and eventually found its way to South Africa through international networks of educators connected to CEE.[5] *I had previously worked in India and I had a strong interest in South African history. It seemed a perfect case study, and I booked my flights for India and South Africa to undertake a six-week pilot study at the end of the first year of my doctorate.*

This whirlwind trip, which spanned Johannesburg, Cape Town, Port Elizabeth, Grahamstown, Pietermaritzburg, Durban, Delhi, Ahmedabad and Mumbai, entirely refocused my research. What I ultimately worked out was that handprint was less an intervention and more a metaphor that educators around the world could interpret in different ways, depending on their context and approach to education (Fig. 4). But it seemed that an easily identifiable 'scaling object' (i.e., an element of an intervention that stays constant across different sites) was missing,[6] *and it looked like handprint was not so much a metaphor as an empty signifier.*[7] *It seemed to operate in liminal*[8] *spaces in both India and South Africa as it tried to promote an idea of empowerment within a social limbo simultaneously pulled toward the promise of development and held back by the tentacles of (neo)colonialism and bureaucratic neoliberalism. What does scale mean in such a context?*

[5] The Environmental Learning Research Centre at Rhodes University, which has links with CEE, was instrumental in this transfer and helped to incorporate the idea of handprint into teacher training materials used in South Africa's Fundisa for Change programme. The Wildlife and Environment Society of South Africa (WESSA) also helped popularise the handprint concept through the network of schools enrolled in the international Ecoschool programme, which is administered in South Africa by WESSA. For peer-reviewed research on Eco-Schools, see Cincera & Kovacikova (2014), Cincera & Krajhanzl (2013) and Cincera et al. (2017).

[6] The term 'scaling object' is used by Mickelsson, Kronlid, and Lotz-Sisitka (2018) who discuss it in the specific context of Education for Sustainable Development programmes, but the concept behind it is, arguably, applicable to all development interventions, and it became an important element in my working theory of scalability.

[7] The schools I visited were by no means representative of how handprint might be interpreted elsewhere in India, South Africa and beyond. My reflections therefore should not be seen as a comment on the effectiveness of it as a concept; I am merely drawing upon them as an entry point into the theoretical framework presented in this thesis.

[8] Social scientists have used the concept of liminality in many different ways. In this thesis, I use the words 'liminal' and 'liminality' to denote conditions of 'in-betweenness', specifically with respect to inherited spaces of marginality. In such spaces, the proximal cause of marginalization may no longer be visible (or it might not even exist anymore, e.g., direct colonial rule) but its impacts are real. This use of the term is similar to Wacquant's (2016).

Figure 4: Handprint and national flag on recycling boxes in a South African primary school

And then came the saplings incident. Up until that morning in Grahamstown, my research was all about the idea of sustainably developing (the core concept of ESD) and trying to understand how best to 'optimise' education to support this effort at scale more effectively. But that morning my thinking started to change. What if I turned ESE (Environmental and Sustainability Education)[9] *on its head and focused on 'developing sustainability' instead? How do we develop (define, promote, strengthen) sustainability in individuals, systems, societies? Presumably, there are many different ways to go about this, but who gets to decide how and why? How do we avoid having white teachers in black township schools advance the kind of sustainability that sustains only South Africa's continuing de facto apartheid?*

[9] ESE is a broader term than ESD, incorporating education approaches that do not necessarily deal with sustainability but focus on some aspect of the environment. By this point in my research, I started using the category of ESE rather than ESD to refer to the subject of my research.

I found these questions fascinating, but I also realised that volumes and volumes had been written about sustainability; what could I possibly contribute that had not already been said? I was interested in hands-on practitioner-oriented research, and reflecting on my conversation with Helen raised questions about agency, politics, power, responsibility—the very definition of education. This was my dilemma: Should I keep working on the scalability of handprint, a subject that might appeal to practitioners but one I was becoming increasingly convinced did not get to the heart of the issue of sustainability? Or, should I shift my focus to the (de)politicisation of ESE, a seemingly vague and quite possibly useless subject?[10]

I chose the latter. To stay true to the field and to the method, I reasoned, I needed to go where the ethnographic journey was taking me. In somewhat of a shock of recognition, the politics of the interface between education and the environment replaced the scalability of development as my main intellectual interest.[11] *I started seeing a pattern across schools in both South Africa and India. If a group of students planted trees, fixed leaking taps or cleaned a river, they would be seen as leaving a 'handprint' of sustainability on their communities. But if a student used her hand differently, to write a letter to a local politician, for example, this would not be considered a 'handprint'. Individual apolitical deeds were what handprint seemed to stand for, and maybe this was something it shared with other development projects.*

Two weeks after I met Helen, I confronted CEE director Kartikeya Sarabhai with my analysis as we were talking in his Ahmedabad office. He remarked, 'When I see a piece of paper hanging about on the floor, I can pick up the phone and get hold of the cleaners to do it.

[10] Changing the topic of my research would be a step into the unknown, off the well-trodden paths of development discourse toward a theoretical and methodological territory well outside my comfort zone. And what would be the point, I asked myself, of spending years on a piece of theory-laden, inaccessible research that might only be read by my supervisor and examiners?

[11] From this point onward, I use the term 'education' in a broad way, referring to intentional learning processes within or outside an institutional setting. When referring to education taking place in the context of government-run schools, I use the term 'schooling' or 'formal education' interchangeably. Educational programmes—inside or outside the classroom—designed to address an environmental or sustainability concern are referred to as ESE, as noted above. These distinctions are important: part of my argument is that 'educating for the Anthropocene' is about much more than schooling, an idea that contradicts much of the educational development discourse, which equates education with schooling.

But I can also pick it up, throw it away and phone the cleaners to say, "Why didn't you pick it up?" This sounded convincing at first, but then I asked myself, what if the problem is larger than a candy wrapper? It seemed I had stumbled upon something important. I considered my dilemma solved, and from that point onward I only looked at handprint in the rear-view mirror. I continued to tell the 'saplings' story to colleagues and friends, and it became the origin myth of my new PhD topic.

But the dilemma did not end there; it accompanied me along my entire research journey. It is woven into the lines of every chapter in this thesis. I realised later, as I was looking over my notes, that the saplings incident took place in a special needs school and that I had no idea about the disabilities the students suffered from or what they were or were not capable of, and therefore I could not sit in judgment of the teacher. That I forgot this important detail told me something about my own political orientation, about the hypotheses I brought with me to the field and for which I hoped to find empirical support.[12] *I was still looking for simple answers that could be translated directly into policy and finding it frustrating that the field was not yielding such solutions.*

A recent conversation brought the tension into sharp relief once more. While discussing my research with a leading scholar of the Anthropocene, I received a response I did not expect that seemed to reveal the useless, disconnected-from-practice nature of my project. This scholar was uncomfortable bringing politics into the conversation about environmental decay and felt that politicising the environment only means that we argue and fail to act, which there is no time for anymore. She asked me: 'Shouldn't all the educators in the world focus on one thing and one thing only—preparing the future generation for the massive challenge of sequestering carbon from the atmosphere so that humanity survives?'

[12] There was nothing in my fieldnotes from the visit to the school to suggest the children were in any way disabled, although I am not qualified to assess this. It is possible that at least some of the children were attending this school due to their socio-economic status and poor academic results (which could be for a number of reasons) rather than due to a disability.

I was speechless for a moment, then thought back to my time in South Africa in 2016. On the last day of that trip, I talked to two academics from the University of KwaZulu-Natal in Pietermaritzburg. These two women told me that schoolchildren clean up trash from the local river every year as part of their environmental education, and that every year more rubbish makes its way into the river. 'There's no point in cleaning up if you don't fix the real issues upstream', one of them told me.[13] *Surely there was more to ESD than this? And surely there is more to education than learning how to capture carbon from the atmosphere?*

These are just some of the many questions that emerged during my fieldwork that demonstrated to me that researching the (de)politicisation of ESD has not only theoretical and methodological implications but can also profoundly impact practice. While on some level I continue to ponder how educators can utilize some of the theoretical insights of my research, I no longer doubt that studying the politics of education and the environment is worthwhile; indeed, I believe that such research has the capacity to transform the way we think about education. In the pages that follow, I hope to make inroads to this end.

[13] I experienced a bit of a déjà vu—I had heard a similar argument before. An education scholar at Rhodes University in Grahamstown spoke to me about the idea of using earthworm farms as part of ESD. 'Well, if you don't actually explore the issues of why organic fertilizer is better than inorganic fertilizer and maybe make the links to permaculture and healthy living and soil quality and top soil water retention, then you just have a ten year old excited because she gets to work with gooey worms'.

Chapter 1.
Introduction: The Death (and Rebirth?) of a Civilisation

The greatest challenge we face is a philosophical one:
understanding that this civilization is already dead.

Roy Scranton, Learning to Die in the Anthropocene *(2015, p. 21)*

Depoliticisation of education is not constrained to South African townships; it is a transnational phenomenon, as I learned through my fieldwork in India. During an interview in Delhi in March 2017, Arnab, one of the environmental activists who tried to stop construction of the Tehri Dam, a giant reservoir in the Indian Himalayas that displaced more than 100,000 people (Fig. 5), explained to me how India came to be obsessed with these megaprojects.[1] 'Water resource bureaucracy was developed and it became totally not only non-transparent and non-participatory and unaccountable but they actually justified it [by] saying it is a very technical issue and only we know it and engineers know what needs to be done', he began. 'The people' were unable to understand the highly technical nature of these projects, so only the views of the 'experts' mattered. 'Pandit Jawaharlal Nehru, by calling these projects "temples of modern India", actually allowed them to be immune and outside the whole democratic set-up and democratic accountability', Arnab concluded. Damming India's rivers was, he noted, a bureaucratised process that undermined the civic equality among Indians that was needed for meaningful participation in shaping the country's development trajectory, a view that echoes Hannah Arendt's (1970) conception of modern bureaucracies. While her analysis was of the

[1] Arnab and the names of other interlocutors in this thesis are pseudonyms. If an informant chose to be named, I refer to them by their full name and their affiliation. Arnab was one of my key informants, and he returns in Chapter 6. Throughout the thesis, I provide as much ethnographic detail as possible about people, places and events, but in some cases the level of detail is limited by the need to protect the identity of individuals and institutions that opted not to be named in the thesis, especially when discussing sensitive subjects such as breaking regulations.

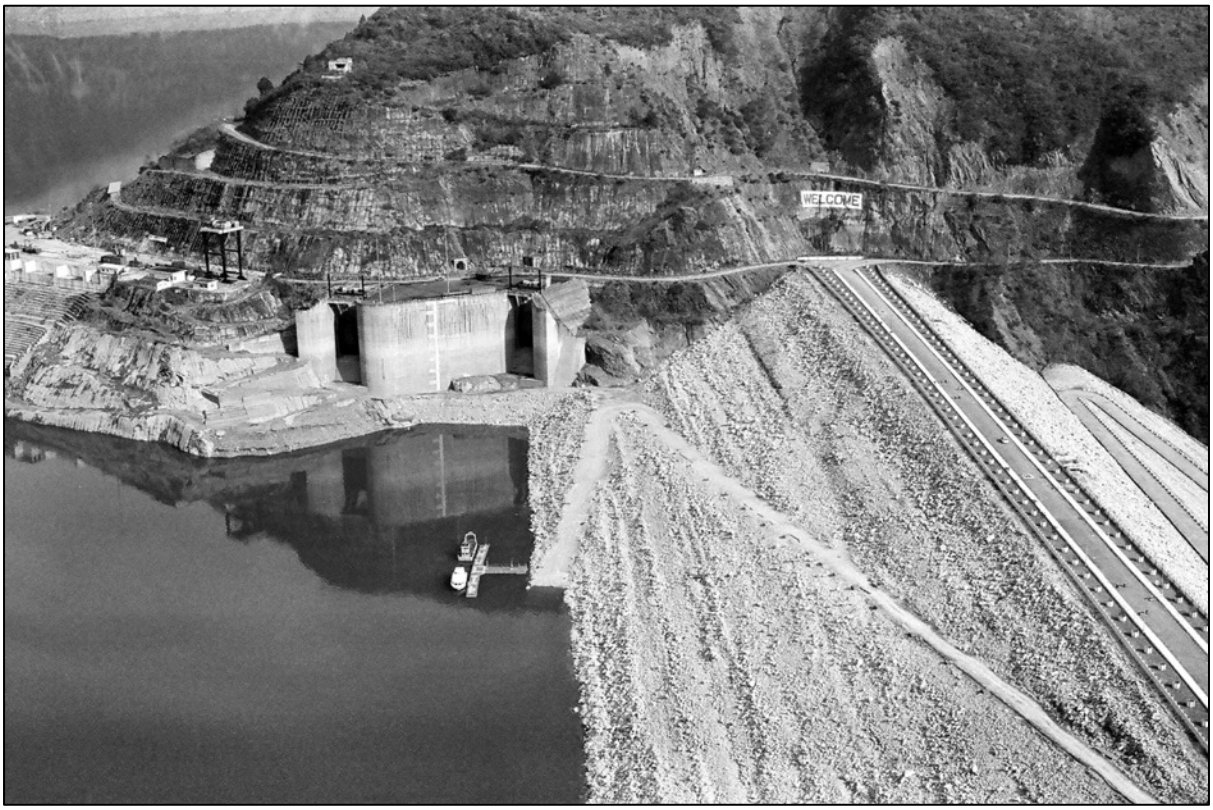

Figure 5: Tehri Dam, curving around a mountain

modern authoritarian state, I recognised through my ethnographic research in India and South Africa how this bureaucratic state had manifested in the mindsets of communities relative to the natural environment. One of the ways in which bureaucratised states shape their citizens' political imaginaries[2]—or perhaps they stifle political imagination and action—is through education systems. Such political pedagogy can enable violence against the natural environment; therefore, the study of the interface between education and the political has crucial implications for our understanding of the forces that allow the kind of mass-scale environmental devastation brought about by Tehri Dam.

Let us compare Arnab's views on dams with those of Trisha, a science teacher at Seema Primary, a government school in Pashulok, a rehabilitation site for 5,000 of the Tehri Dam

[2] In this thesis, I use both the terms 'imaginary' and 'imagination'. The latter 'is meant to designate all those *imaginative processes by which collective life is symbolically experienced and this experience mobilised in view of achieving political aims* (Glăveanu & de Saint Laurent, 2015, p. 559; emphasis in original). I use the concept of the 'imaginary' to denote what Hage (2012, p. 291) states is 'the product of what Bourdieu would call a specific radical *illusio*: not just a conception of the world but an investment in it.'

'oustees' on the outskirts of Rishikesh in the state of Uttarakhand.[3] Trisha believes that '[Tehri] Dam is extremely beneficial for the entire Uttarakhand as well as for entire India . . . The electricity which is being generated is being used in Uttarakhand and being sold to Uttar Pradesh and Delhi . . . The dam is a blessing as it will help in development'. When asked about the project's potential downsides, she commented that 'there has been no harm and even if many trees were cut, the only harm was that people were resettled. But they have got land, houses and money. So, even if they earned their entire lives, they would not have been able to earn the amount of money they have received'. Trisha was not alone in this view; all the teachers at Seema Primary and all the textbooks they used expressed the belief that the environmental and human costs of Tehri Dam were negligible and could not begin to compare with the benefits. This was a closed matter and there was nothing to debate. By the end of my fieldwork, I came to see this school as an agent of bureaucratisation (Arendt, 1970) seeking to mould children into docile subjects deprived of political freedom and the ability to act. It was spreading the very ideology Arnab identified as the cause of India's state-sponsored violence against its marginal peoples and the natural environment.[4]

These interviews were part of a critical, collaborative, multi-sited ethnography I undertook between 2016 and 2018 in Pashulok and in Wentworth, a neighbourhood in Durban, South Africa, that had been exposed to decades of excessive industrial pollution and environmental racism (Fig. 6). My research aimed to understand how two kinds of education—schooling and activism—shaped young people's political imaginaries about the environment in these communities. In such spaces visibly and viscerally affected by environmental

[3] 'Oustee' is often used in the literature on India's dams to refer to people displaced from their land. The connotation is that state coercion and force were used to move people, rather than them being relocated voluntarily.

[4] By 'marginal peoples', I refer to groups of people left behind by modernity and progress. This includes Indigenous groups (Adivasis in the Indian subcontinent), people living from subsistence agriculture in rural areas, and people on the margins of society, such as *Dalits* in India or slum-dwellers in South Africa. Large-scale development and infrastructure projects that have major environmental and human consequences tend to be built in places far from privilege and to disproportionately affect marginal peoples.

Figure 6: The 'inferno' of South Durban

destruction, development causes the ‘permanentization of liminality’ (Thomassen, 2009, p. 22), simultaneously projecting the modernist promise of prosperity while importing toxic by-products from the territories where modernity has already established its hegemony. Pashulok and Wentworth are ‘behind’ on the development trajectory but also ahead of their time as they experience the dystopia of environmental decay awaiting much of the rest of the world as humanity moves further into the Anthropocene—a new geological epoch in which people are the primary force shaping the planet in ways that only geological ‘deep time’ (Davies, 2016, p. 23) can undo. It is an age of what Robert Nixon (2011) refers to as ‘slow violence’, the gradual, ‘invisible’ destruction of the planet and its marginal peoples that lacks the spectacle of the blatant violence we see in daily news (Fig. 7). This notion is related to the idea of slow catastrophes described by Warde, Robin and Sorlin (2018, p. 3): ‘Droughts and famines, the acidification of the ocean from agricultural chemicals, lead poisoning in children playing in areas with lead paint are all disasters, but they evolve more slowly than the human eye can

Figure 7: The view from a school corridor, Wentworth

see'. The outcomes of such catastrophes are painfully visible in liminal spaces like Pashulok and Wentworth, where accelerating slow violence is found in the face of an Indigenous environmental refugee or in the odour of carcinogenic air inhaled every day by people of colour. But these are also places of the past, products of colonial, racialised histories, artefacts of, in Mignolo's (2011) words, the 'darker side of Western modernity'.[5] In the Anthropocene, it is in spaces like these that education can reinvent itself and find its renewed purpose, its political identity.

Before I return to the story of Tehri Dam's impact on the education of oustee children, let me briefly describe how I went about trying to understand the processes shaping young people's political imaginaries of the environment in Pashulok and Wentworth. Between 2016

[5] Neither Pashulok nor Wentworth existed prior to the 'great acceleration' (McNeill & Engelke, 2014) of the post-World War II globalising transnational processes. Both spaces were created by governments in response to the by-products (or 'negative externalities') of the consumerism-driven, science-fuelled, infinite-growth-seeking world.

Figure 8: Making an observational film in Pashulok

and 2018, I undertook eight research trips, four to India, three to South Africa and one to France. These included a pilot study, the main period of the fieldwork, and follow-up visits to share preliminary findings with study participants, for a total of nine months in the field.[6] My main research methods involved observation, 109 semi-structured interviews and 26 focus groups, as well as a range of visual-anthropologic methods including mind-mapping and drawing imagined pasts and futures. I also held a 10-week workshop on observational filmmaking (Fig. 8), modelled on the work of David MacDougall (2006; Potts, 2015), that gave students in both sites the opportunity to produce short films about their experience and understanding of the environment. The interview and focus group participants included students, teachers, parents, school administrators, community members,[7] local activists and

[6] A September 2016 trip to India involved spending additional time at CEE in Ahmedabad, pursing elements of institutional ethnography with its staff and participating in a major ESD conference, which is discussed in Chapter 7. While in France, I interviewed several UNESCO staff members in the Section of Education for Sustainable Development at the organisation's Paris headquarters. This is explained in more detail in Chapter 3.

[7] Throughout this thesis, I use the term 'community' when referring to the inhabitants of Pashulok and Wentworth. This term is an imperfect concept. Gidley (2013) speaks of 'an X community in Y' as a myth, pointing out that in contemporary spaces of 'super-diversity', there is 'no single focal point for 'community' to come together. Residents pass each other in the public spaces but remain strangers. The sheer variousness of cultures and lifestyles

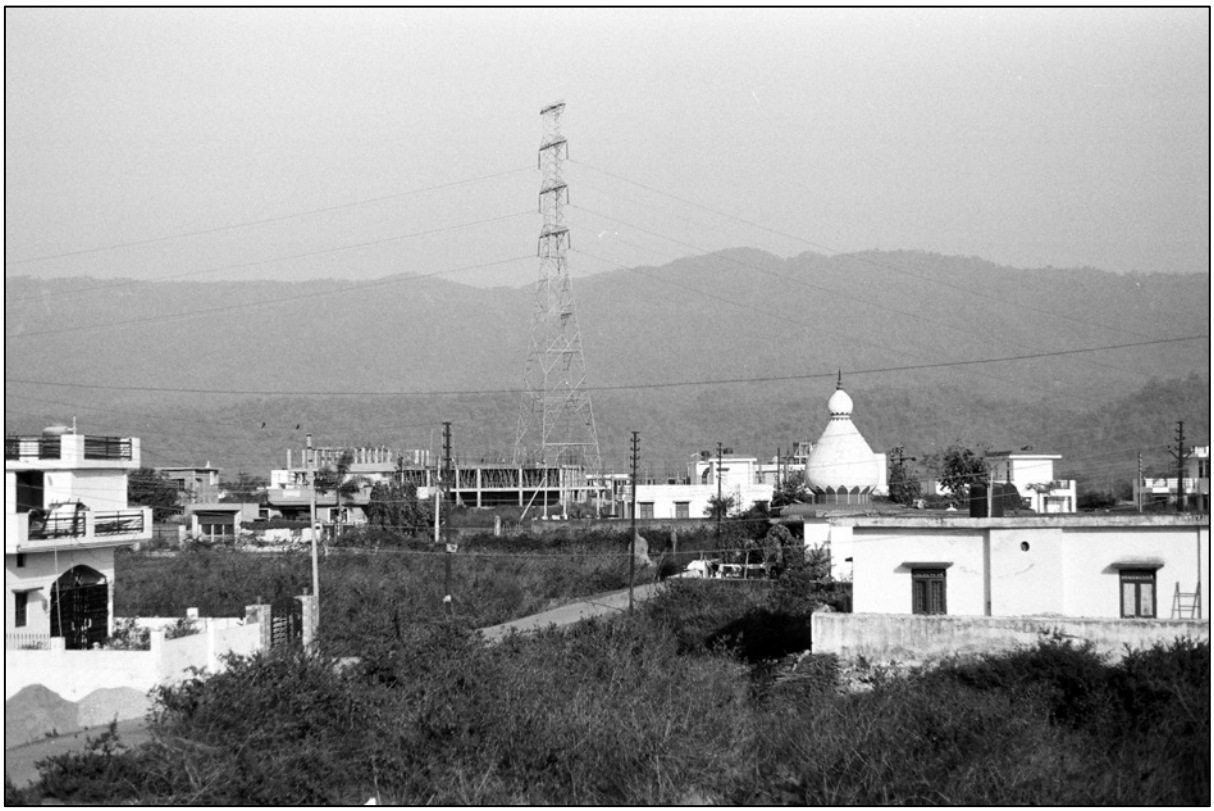

Figure 9: Power lines carrying electricity to Delhi above Pashulok (where power cuts are common)

national-level activist figures in both India and South Africa.[8] To contextualise my findings, I sought to incorporate four realms of inquiry into my analysis—the local, the historical, the national and the global (Dillabough & Kennelly, 2010)—complemented by a fifth:[9] the geological, the realm of deep time with its attendant questions of intergenerational justice and trans-temporal responsibility. In line with this approach, I now return to Arnab and Trisha, and

defies the pastoral intimacy behind the idea of community' (p. 365). While Pashulok and Wentworth may not be as ethnically or linguistically diverse as Pepys Estate in London (Gidley's research site), they too can be described as places of super-diversity, for both are the product of state-sponsored social engineering that broke up existing communities, forcibly moved people and created spaces of what we might think of as forced diversity. The word 'community', therefore, needs to be understood in this context as referring to groups of people whose experience of living in Pashulok and Wentworth may best be described as an experience of exile rather than of home.

[8] All of these interactions were recorded, transcribed and analysed using the techniques of interpretative phenomenological analysis (J. A. Smith, Larkin, & Flowers, 2009).

[9] Within the multi-sited ethnographic research design, the local, historical and national realms can often be seen as reflections of the global dimension of transnational phenomena. To the extent that ethnography is 'a theory of description' (Nader, 2011, p. 211), multi-sited ethnography can be thought of as grounded theory for a cultural and political analysis of the 'depoliticisation' of the environment. Such a theory is rooted in 'chains, paths, threads, conjunctions, or juxtapositions of locations in which the ethnographer establishes some form of literal, physical presence, with an explicit, posited logic of association or connection among sites that in fact defines the argument of the ethnography' (Marcus, 1995, p. 105).

situate their perspectives within the spatial and temporal context of 21st century Pashulok (Fig. 9-10).

To a historian of India, widespread bureaucratisation that interferes with the functioning of Indian democracy is not surprising. As Ludden (1992) has argued, the independent Indian state inherited a bureaucratic apparatus from the colonial period in which self-proclaimed experts determined the country's future on behalf of the 'masses'. Five-year plans inspired by the Soviet Union were seen as too complex to be grasped by the 'average' Indian, which led to a lack of transparency and accountability in governance (Zachariah, 2005, 2012). Large dams, which were given the status of a secular religion (Khilnani, 2012), are perhaps the most grandiose manifestation of this authoritarian tendency (Jalal, 2009) of the Indian state. Since India's economic reforms of 1991, we can add neoliberalism to the list of bureaucratising and anti-democratic forces in the country (Ganguly-Scrase & Scrase, 2008; Panagariya, 2005; Varshney, 1998), and since the 2014 elections, the takeover of the government by 'illiberal' Hindu nationalists (Blom Hansen, 2019; Komireddi, 2019; Palshikar, 2019); both are examined in Chapter 4. Yet, as Patrick Heller contends (2001, p. 150), India (and South Africa) are 'arguably the most successful cases of democratic consolidation in the developing world'. Although he wrote more than 15 years ago, before the rise of Modi in India and Zuma in South Africa, Heller's analysis still holds because, as he points out,

> *their respective transitions were driven by broad-based, encompassing, secular, pan-racial/pan-ethnic movements deeply rooted in civil society. Because political society was the domain of European elites, the liberation struggle in both countries evolved and mobilised through structures of civil society (unions, schools, communities, peasant associations, religious organisations) and relied heavily on rich, domestic narratives of resistance. (Heller, 2001, p. 153)*

Despite this history, democratic institutions that are formally in place in both countries often lack the corresponding participation of the disadvantaged 'masses' in policy decisions, leaving

these states in a kind of unfulfilled democracy.[10] The gap between the freedom fighters' aspirations and the everyday lived realities of Indians and South Africans makes these two countries particularly fertile settings for a comparative analysis of (de)politicisation, slow violence and education.[11]

Take the South African constitution: Section 24 reads, 'Everyone has the right to an environment that is not harmful to their health or well-being; and to have the environment protected, for the benefit of present and future generations' (Republic of South Africa, 2015, p. 9).[12] And yet, South Africa 'remains one of the world's most dangerous environments in which to live and work' (Bond & Hallowes, 2002, p. 45). This is due in part to the historical legacy of the eugenicist (Dubow, 1995; Klausen, 2018) and totalitarian apartheid regime of 1948 to 1993, in which non-white people were considered disposable; to the country's neoliberal economic orientation which has seen a massive increase in unemployment and inequality (Russell, 2010); and to the successive governments' lack of attention to environmental issues (Bond & Hallowes, 2002). Rather than engaging in any 'radical' or 'anti-system' efforts, activists operating today in South Africa (like those in India) are often merely trying to hold the state accountable to its stated values. As David, one of the activists, told me, 'We've come out of apartheid and the constitution says you will have economic development while protecting the environment, and the word is "while", not "after"'.[13] However, according

[10] The breadth of social actors who enjoy effective political power and the range of issues over which democratic power extends have not expanded, despite both countries' formal commitments to 'promoting social rights' (Heller, 2001, p. 150).

[11] Educational inequalities in developing countries are typically high (higher than income inequalities in some cases), while average performance levels remain low; South Africa and India are both striking examples of this (Crouch & Rolleston, 2017).

[12] 'Tellingly, however, that Constitution also provided a caveat in mandating "reasonable legislative and other measures that prevent pollution and ecological degradation, promote conservation, and secure ecologically sustainable development and use of natural resources *while promoting justifiable economic and social development* (emphasis added), quite consistent with international sustainable-development rhetoric"' (Bond & Hallowes, 2002, p. 32).

[13] Despite these ideas being enshrined in the constitution of both countries, the activists saw themselves as having no political allies. In the following exchange, a prominent Delhi-based environmental activist exposed the naivety behind my question about an intrinsic ability of the democratic system to enforce environmental rights. Q: 'Now that people know about [the detrimental impact of large dams], why isn't there political change?' A: 'Because firstly, there are so many quantum jumps of faith in what you are proposing. You are saying that because there is

Figure 10: 'Everyday life' in Wentworth

to David, post-apartheid governments did not deliver—not on the question of environmental protection or on a host of other issues. Desmond (Des) D'Sa, the leader of the South Durban Community Environmental Alliance (SDCEA),[14] told me that the 1990s were marked by

> *a false sense of hope because little did we realize that the very same people that we had put into government is [sic] going to turn on its own people. So we got all the freedom, but we haven't got the jobs, we haven't got the services, we haven't got leaders that are*

awareness why isn't there a political change. But there is no option. If you look at the options that are driving politics… there is either BJP [Bharatiya Janata Party, a Hindu nationalist party currently in government] or Congress [INC, Indian National Congress], there is no third option really. Left doesn't have a different view on water resource development, neither does AAP [Aam Aadmi Party, an alternative to BJP and INC launched in 2012]. AAP, of course, is not a political force at that level. So, people don't have options'. The situation is similar in South Africa, as one of the SDCEA-affiliated activists told me: 'So in South Durban, you have exactly the same communities that under apartheid would have not benefited from that model of production… Because they don't have a choice. There are no people that they can vote in that will make that decision. So the opposition, as well as the current political party both buy into the same model of production and that same model of production is the status quo. So they have no choice effectively. There is no choice for them'.

[14] SDCEA is discussed in more detail in Chapter 6.

Figure 11: Wentworth through the school windows

> *capable of serving us, they are serving their own interest and cost of living has gone up*.[15]

This narrative seems very true when you visit South Durban. The coloured township of Wentworth (Fig. 11), my research site, is home to approximately 40,000 people (B. Anderson, 2009, p. 58) and dates back to the early 1960s when, due to the implementation of the apartheid government's Group Area Act of 1952, many coloureds were forcibly relocated here from across the city and from places as far as the Eastern Cape.[16] Subsequently, according to Chari (2006a, p. 123), the township 'retreat[ed] into a local world that becomes increasingly

[15] This disillusion stands in stark contrast to the state's dominant narrative of opportunity, equality, freedom and human rights in the post-apartheid era (Bond, 2014; Russell, 2010; Saul & Bond, 2014) which is analogous to India's post-Independence socialism-inspired narrative (Guha, 2011).[15]

[16] The term 'coloured' has been used in several different ways. In the context of South Africa's diverse constituent groups, it usually refers to people of mixed heritage who do not refer to themselves as either 'white', 'Black' or 'Indian'. This 'intermediate' group was recognised by the apartheid government as a separate racial category and suffered from racial discrimination. Approximately 5 million people who consider themselves to be coloured live in South Africa (Adhikari, 2005).

parochial, trapping its itinerant population of labourers and their families in a local world of gangs, churches, artisans and a bittersweet affirmation of the ghetto'.

Today, the township, like many others in South Africa, is notorious for crime, gang violence, drug abuse, teenage pregnancies, prostitution and high HIV rates. However, for this work, its location makes it a crucial research site, particularly as relates to Nixon's (2011) concept of slow violence and the practice of politics. Wentworth is situated directly on the fenceline of Engen, South Africa's oldest oil refinery, which has a dismal environmental record.[17] Along with other heavy industry situated in South Durban's Industrial Basin, which accounts for 8 per cent of the country's GDP (Aylett, 2010a, p. 484), its emissions contribute to the 'toxic soup' (Chari, 2006b, p. 428) in which people live.[18] Apart from sky-high rates of thyroid cancer, leukaemia and asthma (Kistnasamy et al., 2008; R. N. Naidoo, Robins, Batterman, Mentz, & Jack, 2013; Nriagu et al., 1999), frequent industrial accidents, including fires and explosions, threaten the residents (D. Scott & Barnett, 2009). The state's failures in Wentworth can also be seen in the area of education. The school where I undertook my research not only was made of 'cardboard' and lacked basic amenities, but the kind of education it provided to the coloured children of Wentworth was more likely to help maintain the intergenerational cycle of poverty and exclusion than break it.[19]

And it is perhaps here—at the intersection of 'advanced marginality' (L. J. D. Wacquant, 1996), regional deprivation and bureaucracy—where we can find some of the

[17] I approached Engen for an interview in order to include their perspective on air pollution in this thesis, but I received no response. In India, I was able to interview a representative of THDC (Tehri Hydropower Development Corporation) about the environmental impacts of the dam and the impact of resettlement on the oustees. The perspectives expressed were in line with official government publications and are reflected in the historiography presented in this thesis.

[18] While more recent statistics are unavailable, it is likely that this figure is even higher, given the continued industrial expansion (and continued evictions and removals) in South Durban, particularly in the Clairwood neighbourhood (Maharaj & Crosby, 2014; D. Scott, 2003b).

[19] This is a nickname the school staff used to refer to their school, which was built in the 1970s as a temporary structure made of prefabricated plywood panels, and although it was supposed to be replaced by a permanent brick-and-mortar building within years, the temporary structure survives to this day, in desolate condition.

similarities between state-run formal education in Wentworth and Pashulok.[20] Both schools relied heavily on textbooks and 'teaching to the test', a rigid disciplinary regime was maintained in both, and neither seemed to encourage any kind of independent thinking. Students and their families saw education as a way to get a job that would allow for a barely-out-of-poverty existence. The natural environment was rarely mentioned, and even on those few occasions it was, teachers explored it through the lens of individual, depoliticised actions. Yet, my work with children in both sites indicated they had an understanding of environmental degradation and slow violence, as well as imagined past and future alternative worlds that went far beyond what schools were offering. This was partly due to the influence that exposure to environmental threats had in both communities, such as activism and some intergenerational knowledge transfer beyond the school context. These factors varied across the two sites, as shown in Chapters 5 and 6, but the overarching political and cultural landscapes of schooling in Pashulok and Wentworth demonstrated a remarkable degree of similarity—an unfortunate testament to the globalisation of the kind of education that is not only unfit to meet the challenges of the Anthropocene but in fact adds to them.

It is perhaps symbolic that the school where I did my research in Pashulok resided, or, perhaps more appropriately, squatted inside a shopping complex. Pashulok—a peri-urban patch of land that lies south of the religiously significant town of Rishikesh in the state of Uttarakhand and is built on the Ganges, just west of Nepal's border—was chosen by the Indian government as one of the rehabilitation sites for Tehri Dam oustees. It was initially home to about 5,000 displaced people, of whom an estimated 60 per cent had sold their houses and left by the time I conducted my fieldwork.[21] In addition to their history of environmental activism

[20] According to Wacquant (1996, p. 123), advanced marginality is characterised by 'realities of extreme poverty and social destitution, ethnoracial divisions (linked to colonial history) and public violence, and their accumulation in the same distressed urban areas'.

[21] This is not an official figure, as the Indian government does not keep statistics on the number of oustees who have left the rehabilitation site. This figure was quoted by one of my interlocutors in Pashulok and independently confirmed by two other community informers.

together with the Chipko movement and its leader Sunderlal Bahuguna,[22] at the time of my fieldwork, the residents of Pashulok were engaged in protesting the government's handling of compensation for resettlement. Nakul, one man I interviewed, highlighted the many injustices of the process: 'We were given Rs. 1.5 lakh, but that was spent on shifting. Now we are struggling to find ways to build a house. How is that compared to our house back in the village, which had six rooms, a cowshed, and a lawn with litchi, apricot, papaya, lemon, and jackfruit trees'? Perhaps even more troubling is that the oustees were seeing their communities fall apart, causing a breakdown of social cohesion and solidarity. Nakul continued: 'Earlier there was unity among villages and villagers. There was a system of canals for irrigation. If there was some damage somewhere due to rains or for some other reasons, we had a water guard, who would alert us and all the villagers would come together to repair any damage in the canal or river dam without any fee or without the help of the authorities'. But times have changed.

In Wentworth and Pashulok alike, activists emphasised the states' hollow promise of environmental rights and were seeking to expose the hypocrisy of the Indian and South African governments' espousal of constitutional guarantees related to the environment while failing to translate them into reality.[23] They also exposed government corruption and the alienation of the elite 'experts' from the rest of the population. The activists offered a notion of an engaged citizenry that collectively imagines a shared future and rectifies what they see as lack of civic engagement in both countries. Some emphasised their concern for future generations and were seeking to mobilise an alternative understanding of development, state and citizenship. Activism took different forms in the two sites, operating within an institutionalised framework in South Durban and in a much less organised fashion in Pashulok; its emphases in the two

[22] Sunderlal Bahuguna was also directly involved in struggles against Tehri Dam (James, 2013; M. Sharma, 2009), as discussed in greater detail in Chapter 4.

[23] The counter-narrative of democratic rights and environmental justice is not an expression of anti-system sentiments (cf. Fougère & Bond, 2018). It proudly aligns with the legal foundations of the Indian and South African states and critiques the ways the state went about delivering on its promises (cf. Chipkin & Swilling, 2018; Dasgupta, 2015; Renwick, 2018) rather than the nature of these promises.

locations reflected the distinct historical, cultural and socio-economic context of each (explored in detail in Chapter 6). What the activists had most in common, however, was their limited reach and a separation from formal education. I found in both countries that environmental educators and environmental activists were two distinct camps that were, at best, suspicious of each other: educators often saw activists as radical anti-system agitators, while activists considered educators complicit in the status quo. In other words, even if activists had the resources to politicise the environmental, their potential was untapped, at least when it came to formal education.

What does it mean to 'politicise the environmental'? According to Arendt (1998), politics is not a place; it is a path. To move along this path means to engage in what Arendt described as a kind of agonistic pluralism—collectively agonising over a question as equals to find a way forward.[24] In Mouffe's (2000, p. 15) words, 'envisaged from the point of view of "agonistic pluralism", the aim of democratic politics is to construct the "them" in such a way that it is no longer perceived as an enemy to be destroyed, but an "adversary", i.e. somebody whose ideas we combat but whose right to defend those ideas[25] we do not put into question'. Indeed, some scholars who have studied the 'urgency of the Anthropocene' align with the view that democratic deliberation and enabling contestation are crucial in dealing with the challenges of the era (Dryzek, 2010; Lynch & Veland, 2018, pp. 10–11). Some have also expressed the need for institutions to engage in 'unprecedented ecological reflexivity', but under the umbrella of democratic deliberation and contestation (Dryzek & Pickering, 2018). Many scholars studying the Anthropocene have, it seems, much common ground with activists in India and

[24] In this context, 'equal' does not imply social or cultural homogeneity, nor does it necessarily refer to social justice or equality in front of the law. Rather, it signifies the goal of a society in which everyone's voice is listened to—a society composed of individuals who all share a belief in the inherent value of listening to different viewpoints even if they are not in agreement with one's own.

[25] This, Mouffe adds, 'is the real meaning of liberal democratic tolerance, which does not entail condoning ideas that we oppose or being indifferent to standpoints that we disagree with but treating those who defend them as legitimate opponents' (Mouffe, 2000, p. 15).

South Africa. However, few academics have addressed the implications these arguments have for education.[26] I hope this ethnographic account contributes to our understanding of what the concept of education might mean in the Anthropocene.

This thesis is divided into three parts. The first outlines the challenges of the era of the Anthropocene and how I sought to learn more about it through my research. It encompasses Chapters 1 (introduction), 2 (literature review and theoretical framework) and 3 (methodology). The second part, consisting of Chapters 4 (historical context) and 5 (ethnography of schooling at the two sites), argues that the schooling spaces at both sites can be described as a kind of 'anti-education' for the Anthropocene. The final part, which includes Chapters 6 (ethnography of activism) and 7 (conclusion), traces the socio-cultural landscapes of the activist movements in both spaces and examines the potential and limitations of activism as political pedagogy for the Anthropocene era.

These implications are not as clear-cut as this neat structure might suggest. As Graber (2009, p. vii) notes, ethnographic writing is 'the kind that aims to describe the contours of a social and conceptual universe in a way that is at once theoretically informed, but not, in itself, simply designed to advocate a single argument or theory'.[27] In order to expose the reader to the ambiguities of the field and attendant questions of representation, I disrupt my narrative with a methodological dilemma in the opening of each of the three parts. Reflecting on these dilemmas, along with a wide array of philosophical and sociological issues raised in this introduction, is crucial to how we read the findings of this research and, to ultimately enhance our understanding of how education might help us harness humanity's collective potential in dealing with the hardest problem we, as a species, have ever encountered.

[26] This claim is substantiated in the literature review in Chapter 2.
[27] Or, as Nader (Nader, 2011, p. 211) argues, ethnography can be seen as a 'theory of description'.

1.1 Hermeneutics of sustainability, action and slow violence in the Anthropocene era

When my colleagues and friends asked me about my research, I would tell them it had two parts. The first sought to show the ways mainstream, state-run schooling in my research sites (and, arguably, more broadly in India, South Africa and beyond) failed to respond to the challenges of the Anthropocene and, despite the optimism of UNESCO and other organisations that view education as a path towards sustainability, in some ways they potentially make the world *less* sustainable.[28] The second part explored the ways activist movements operating within the same spaces as education might be able to fill the gaps left by schooling (e.g., through their efforts to encourage young people towards a politicised environmental agenda) and suggested ways that schooling might find inspiration in activism. The first part was the critique and the second part was the proposed solution.

This admittedly simplistic conception of my research allowed me to explain quickly what I was working on, and the more I repeated it, the more it affected how I thought about interpreting my data. Scholarship, like education, cannot be apolitical (Freire, 1972, 1998, 1999),[29] and researchers have a responsibility to society to both generate knowledge and to address the challenges of their era.[30] This idea led me to formulate a clear-cut, oversimplified reading of my research. I return to this belief toward the end of this section, but I first want to make the point that ethnography is an inherently subjective endeavour that is heavily

[28] This belief is reflected in a range of UNESCO's publications (e.g. Nolan, 2012) and underpinned the Decade of ESD (DESD) in 2005-15 (for a critique of the limited reach of DESD, particularly in Africa, see Manteaw (2012)). It was also echoed during my interviews with UNESCO staff in Paris in 2017.

[29] Even though there are increasing tendencies to produce 'depoliticised' scholarship, which are in part driven by neoliberal regimes of research governance (Hartley, Pearce, & Taylor, 2017), such tendencies are situated within larger dynamics of the shrinking democratic spaces within states (Flinders & Wood, 2014).

[30] At the time of deciding which PhD programme I would enter, I visited the Anthropology department of an unnamed (but rather famous) American university, where I had been offered admission. While talking to one of the senior faculty, I asked him whether he was talking to any policy-makers about his work. His facial expression made me feel like an alien species, but it was the words that made it crystal-clear this could not be my academic home. 'My job is to produce knowledge. It is other people's job to figure out what to do with it,' he said with an air of superiority and privilege rarely seen even in a conservative, hierarchical institution like Cambridge. Needless to say, I did not accept the offer, but my experience since this incident has repeatedly proved that a significant part of the academic community scoffs at 'applied' (or useful) research. Perhaps this is yet another divide we might be able to overcome as we all—'applied' and 'pure' academics alike—face the challenges of the Anthropocene.

influenced by the researcher's positionality and personal politics. My intention in this thesis is to be transparent about my political views and the ways they shaped my analysis, and let the reader be the judge of the conclusions I reached.

The notion of rigour that is central to my methodology was achieved through long-term immersion and an iterative form of data collection, which was, at best, a reflection of the lived realities and imagined worlds of the people who constitute the social field of this ethnography. I relied on a variety of research methods (including the use of instruments backed by extensive background research) and analytical tools (e.g., triangulation and self-reflexivity). Thanks to these techniques, my analysis is considerably more nuanced than the crude distinction between 'bad' schooling and 'good' activism. Neither schooling nor activism is a homogeneous phenomenon, and both consist of diverse groups of people with unique subjectivities.[31] The goal of my research was not to glorify one at the expense of the other but to understand how different forces—the ideology of infinite growth, consumer culture, individualism, collectivism, agonistic pluralism—shaped both schooling and activism, and how individuals responded to these forces in keeping with a belief in free will, even in the context of the most restrictive of cultural, political and socio-economic landscapes.[32]

[31] Identifying such nuances is the hallmark of ethnography, but this does not negate the fact that I entered the field with a set of assumptions and political beliefs about schooling and education, and that much of my data pointed in the direction of schooling's limitations and activism's strengths when it came to 'educating for the Anthropocene', in line with my initial expectations. The analysis presented in this thesis can be read as an honest effort to remain true to the realities of the field without losing sight of the political positioning of the larger project.
[32] One way to resolve the structure versus agency dilemma is to apply Bourdieu's (1977) concept of the 'habitus', a person's internalised expectations of operating within a wider 'field'. Since the habitus and the field interact and shape one another, free will and agency are preserved, albeit affected by the structural realities of the outside world.

Figure 12: 'Dance Moves' in Wentworth through the lens of a student film

Another key nuance in my work is the agency (and voice) of the young people themselves. It is tempting to see learners as passive absorbers of knowledge, as blank slates to be filled by the political pedagogies of schooling and activism. But this is not so, as my research, and particularly its participatory filmmaking component, shows. For example, in one of the student films shot in South Africa—'Wentworth Changing to Progress'—the children included a scene about 'Dance Moves', a modern dancing class for young people in South Durban (Fig. 12). In this sequence, the viewer gets to see young people of different ages and skin colours dancing, smiling and apparently having a good time. These shots are interwoven with bites of interviews with the organisers, who are not much older than the participants and who talk about their hopes for the community, which lie in the potential they see in young people. When I asked Mimi, one of the student film-makers, what she hoped the viewer would take away from the film, she replied, 'That Wentworth is not only a bad place, that people care about our community'. This contestation of stereotypes about Wentworth implied a recognition of another kind of politics, one in which 'horizons of the possible' can be extended through collective action. The aesthetics of the sequence mirrored this—the images are carefully

composed with wide shots focusing on natural scenery very different from Wentworth's industrial landscape. As a result, the sequence might appear out of place, and the activity does indeed take place on nearby Treasure Beach, a seaside area over the hill from Wentworth. It was as if, through their choice of subject and the deliberate framing and sequencing of shots,[33] Mimi and her friends were saying that the youth of Wentworth deserve to live in a space devoid of environmental threats and injustice.

To capture the stories of young people—as well as the teachers', activists', parents' and community members' narratives about the natural environment—and get past the dichotomy between those who possess knowledge and those who passively absorb it, I needed not only a diverse set of methodologies but also nuanced theoretical tools. These included two related but distinct theoretical concepts—the phenomenology of historical responsibility, and the hermeneutics of sustainability. The theoretical framework is presented in detail in Chapter 3; here I will briefly outline these two main concepts.

Phenomenology—or the study of expressed meanings and individual and collective consciousness—is key to understanding how young people respond to and make sense of slow violence, the schooling they receive and any activist narratives present in their communities. Specifically, what I refer to as the phenomenology of historical responsibility focuses on how these subjective responses to experiences and meaning-making processes influence individuals' understanding of their responsibilities vis-à-vis previous and future generations. To put historical responsibility into action, Ricœur writes, 'the judge has to convict and to punish, and the citizen has to fight against oblivion and for the justice of remembrance; the historian has the task to understand without accusation or apology' (Ricœur, quoted in Tillmanns, 2009, p. 134). In different situations, we are expected to take on the mantle of a

[33] The workshop encouraged students to think carefully about their subjects, framing and composition. This is one of the reasons why professional-grade camera equipment was used; the use of such equipment required students to go through a series of conscious choices (about white balance, sound source and volume, focal length, focus) every time they pressed the 'record' button. See Appendices J-K for more detail.

judge, a citizen and a historian, and if we follow Ricœur's argument, in all these roles we are bound by a responsibility not only to those we know but to those we will never know. We carry a 'debt to the dead' and a 'debt to the unborn', making sense of which, as I elaborate in Chapter 2, plays a crucial role in the phenomenology of historical responsibility.

One manifestation of having such a sense of responsibility is the understanding of intergenerational justice, and this is a key theme of my research. But there are other manifestations, such as motivation to fulfil the older generations' hopes and wishes for young people's futures, as well as broader burdens of identity (e.g. perpetuating a community's culture and way of life or continuing on a trajectory of 'development' started and shaped by earlier generations). In my research, I examined all of these themes to understand how young people experience the Anthropocene, as mediated through the intergenerational transfer of knowledge via schooling, activism and community exchange.

The second concept—a hermeneutics of sustainability—operates on a collective rather than individual level. Hermeneutics, the 'science, art, or technique of interpretation, paradigmatically of written texts but by extension of human actions and other social phenomena' (Outhwaite, 2001, p. 6661, quoted in P. Gardner, 2010, p. 36), aims to uncover the meanings behind both verbal and nonverbal communication and other forms of representation, which is the socio-cultural and political text of this ethnography. As Kearney (2004, p. 89) explains, Ricœur 'compares the historical phenomenon of critical self-questioning with the textual model of interpretation: both concern a mediation of the subject through the distancing detour of signs and images'. Through this 'detour', achieved thanks to the temporal distance and process of distanciation (P. Gardner, 2010, p. 40),[34] it is possible to identify hidden

[34] 'Methodologically, distanciation objectifies the text by releasing it from the author's (or research subject's) intentions or meanings, and give[s] it a life of its own' (Dreyer & Pedersen, 2009, p. 66).

meanings in the language we use to describe our experience of slow violence, and our political imaginaries of the past, the present and the future.

It is through the phenomenology of historical responsibility and the hermeneutics of sustainability that tangible forms of Anthropocene consciousness that can be acted upon arise. Agonistic pluralism is the link between the two, enabling an exchange of individual 'phenomenologies of meaning-making' (Dillabough, Wang, & Kennelly, 2005) of historical responsibility that lead to a mediated, collective understanding of the hermeneutics of sustainability and enable action. Put differently, by making sense of our experiences and thoughts and engaging in dialogue with others about theirs (as well as about collectively interpreting or deriving meaning from these experiences), we are on a path of Arendtian politics. This path leads in the opposite direction from humanity's biggest moral failures, including slavery, the Holocaust and colonialism. This is arguably one way—perhaps the only way—out of Anthropocene despair that is not likely to end in more despair.

These theoretical concepts enable me to pose a set of research questions that I aim to shed light on in the pages that follow. These questions include:

- How do young people understand and narrate their historical responsibility for the environment vis-à-vis the dead and the unborn? How might this form of responsibility be realized or hindered as a consequence of the conflicts grounded in the environment and their experiences of liminality in the 'Global South'?
- How do 'slow violence' and the highly advanced marginality experienced by these young people mediate or mitigate their capacity for historical responsibility, and what might an ethnographer do to enhance the potential for a recognition of historical responsibility?
- What are the degrees of politicization enacted by intergenerational knowledge transfer in the context of schooling and activism?

- Who, among educators, activists and community members in Pashulok and Wentworth, are the bearers of the 'horizons of the possible' in communities with histories of environmental injustice?
- What role do education spaces—schools, community narratives, social movements—play in this knowledge transfer?
- What are the mechanisms of state learning for young people and how do they shape or undermine their imaginaries of alternative futures?[35]

I have revisited and reimagined these questions during the four years I spent working on this project and they are themselves shaped by countless ethnographic encounters in the field. My goal was not to 'answer' them[36] as much as to let them guide my data collection and analysis while also allowing them to evolve.[37] The goal of ethnographic research, after all, is not to provide conclusive answers but to make the reader feel they are right alongside the ethnographer, sensing the ethnographer's movements and finding themselves inside the affect of the narrative tale.

Such an iterative approach is akin to the modus operandi of Gidley's (2013) ethnography of 'super-diversity' in the context of an inner-city estate in Greater London—a place with an extensive and complex spatial web of connections across virtually the entire world. Pashulok and Wentworth, too, are connected to many places within the global and national fields of sustainability, development and environmentalism that are shaping the environmental threats, ideologies of development and the practice of schooling and activism here. 'Doing fieldwork when the field is so fragmented, so filled with incommensurate

[35] Related questions include: What part does this learning play in young people's perspectives of environment and civic engagement and participation? How does the experience of liminality in 'abject' spaces of the state undermine the potential for realizing political action to challenge slow violence?

[36] These questions are not designed to 'match' the data I collected, and nor is such mapping a matter for ethnography, as it is not designed to be a test of theory or the hypothetical.

[37] In other words, the research questions are as much embedded in my research as they are external to it; establishing their relevance (indeed, centrality) to the Anthropocene—education interface is a finding in itself.

perspectives, and so complexly connected to so many elsewheres requires developing modes of ethnography that are collaborative and which draw on multiple registers of representation', Gidley (2013, p. 374) writes. 'This requires the cultivation of ethnographic humility, renouncing full writerly authority, and being aware that the stories we weave are always partial and limited'.[38] The changing focus of my work and my evolving research questions are part of the never-ending quest for greater understanding at the root of ethnography.[39]

Despite the inherently incomplete findings of my research and the abstract nature of many of these questions, my work has always had the dual function of contributing to knowledge and informing the practice of education and development.[40] I see my research as a form of 'engaged ethnography' (Hale, 2006) that,[41] in Phillip Bourgois' words, 'combine[s] a practical politics of solidarity with reflexive theoretical critiques to engage the high stakes of everyday life' (Bourgois, 2008, p. xii).[42] During the course of my research, I also identified with the related notion of 'critical ethnography', whose aim is 'to theorize social structural

[38] Interestingly, the ethnographic journey Gidley (2013) describes also parallels mine in that visual methods had more to contribute as time went by. In Gidley's case, collaboration with portrait photographers helped reshape the work, whereas in this thesis, participatory observational filmmaking became key to the methodology, as discussed in Chapters 3 and 5.

[39] Gidley (2013, p. 374) refers to Arendt, for whom 'understanding is always something you seek rather than something you achieve: . . . the task of understanding undoes every night what it has finished the day before'.

[40] These two goals are often seen as mutually exclusive. For example, according to Sylvester (1999, p. 703), 'development studies does not tend to listen to subalterns and postcolonial studies does not tend to concern itself with whether the subaltern is eating.' Analogically, a gap separates development anthropology from the anthropology of development. As Arturo Escobar has argued, anthropology of development is concerned with critiques of development that development anthropologists view as 'morally wrong, because they [see them] as leading to non-engagement in a world that desperately needs the anthropological input' (Escobar, 1997a, p. 505). Such divides, however, can be overcome: as Gardner and Lewis (2015) have argued, the distinction between 'pure' and 'applied' anthropology is problematic in that it implies a separation between ideas and action, and in reality a synergy between research, ideas and action often emerges (p. 4).

[41] I found inspiration in such ethnographies as Seth Holmes' *Fresh Fruit, Broken Bodies* (2013), Kim Fortun's *Advocacy after Bhopal* (2001), Laurence Ralph's *Renegade Dreams* (2014), Claire Wendland's *A Heart for the Work* (2010) and Ruth Behar's *The Vulnerable Observer* (1996). All of these works are invested in illuminating and ameliorating social issues facing the disadvantaged, and they provided models of integrating the authors' subjective imaginaries and political purposes with the demands of rigorous research. Each wrestles with issues of representation and ethnographic authority and they collectively demonstrate that, however fraught with inequality, imperfect cultural translation and the researcher's inability to grasp the realities of the research subjects, being engaged is what makes ethnography come alive, what imbues it with hope and what makes it relevant.

[42] This conception is related to Potts and Brown's (2015, p. 255) notion of 'anti-oppressive research', which is characterised by 'committing to social change and taking an active role in that change'.

Figure 13: Brainstorming subjects for observational films in Pashulok

constraints and human agency, as well as the interrelationship between structure and agency in order to consider paths towards empowerment of the researched' (Atkinson, 2001, p. 193).[43] Finally, throughout this research project, I aimed to facilitate the co-creation of knowledge through the observational films made by children that I discuss in Chapter 5 (Fig. 13), in the tradition of collaborative ethnography (Lassiter, 2001).

By bringing together these ideas, this thesis also makes a case for ethnographic research as key to the study of the interface of education and the environment, an interface that is frequently explored through conceptual literature but rarely empirically. I hope that my research can demonstrate the potential of ethnography to illuminate the seeming paradox of

[43] An earlier definition of critical ethnography focuses on its being 'structured in relation to our efforts to construct a mode of learning, and a conception of knowledge that may enhance the possibility of collectively constituted thought and action which seeks to transform the relations of power that constrict people's lives' (Simon & Dippo, 1986, p. 196).

education's complicity in the Anthropocene. In identifying places that would be suitable for my research, I looked for sites marked by what Anna Tsing (2005) refers to as friction—the space where local realities meet large ideas—between globalised slow violence and the localised collective agency of communities. There are many such spaces, but not all put up an activist fight against slow violence and not all have a strong presence of state-sponsored schooling—the other two conditions needed to explore the interface of education and the friction between slow violence and the agency of resistance. It was essential to study this interface in at least two locations in order to make comparative analysis possible—arguably the most effective lens when dealing with elusive phenomena like slow violence and environmental activism. Viewing each site from the other location's frame of reference provided not only a deeper understanding of the dynamics of each place but also traced an outline of the global cultural and political flows that affect both.

Pashulok and Wentworth fit the bill. India, given its history of colonialism and of uprooting millions of people in the name of development, and South Africa, with its racialised, legacy of apartheid underpinned by a cultural and political heritage of settler colonialism, are particularly rich contexts in which to study the interface of education and anthropocenic slow violence.[44] Imperialism and racism, which are inscribed in the histories of these two countries, represent two of the three main forces Hannah Arendt (1962) identified as the causes of 20th-century totalitarian regimes—regimes that, my findings suggest, have more in common with anthropocenic dystopia than meets the eye.

[44] Citing UN statistics, Rawat has argued that 'India uproots most people for progress . . . 60 to 65 million people are estimated to have been displaced in India since Independence [due to development projects], the highest number of people unsettled for such projects in the world. Of these people, 40 per cent are Tribals, 40 per cent Dalits and other rural people' (Rawat, 2013, p. 65).

1.2 Why we need to redefine education

While navigating the activist networks in South Africa, I came upon Oupa Lehulere, the principal of Khanya College in Johannesburg, an institution that my interlocutors in South Durban recognised as a 'school for activists'. Sitting in a large conference room on a hot afternoon, Oupa, a large black man with a subtle voice and a knack for philosophy, talked to me about his vision for the country's education. 'We need an education system that does not punish those who have a commitment to their society and are not necessarily obsessed with self-advancement', he told me in a calm, matter-of-fact voice. 'An education system presumes a certain set of common interests in society—that is why you have an education system. And if you have that then you definitely should be using it to promote this kind of understanding that it's the moral and the normal thing to be mindful of the impact of your activities in society on the environment'. Oupa was so calm that for a second it seemed as if the position he was expressing was uncontroversial in 2017 South Africa.[45] But it was not, and looking back at our conversation, I believe he was really talking about a paradigmatic shift, a vision of a kind of 'education for the Anthropocene', one attuned to politics and capable of cultivating action. But why is it important to think about and study the interface of education and the Anthropocene?

Enumerating the examples of irreversible, Anthropocene-era environmental destruction would easily take up the rest of this thesis, so I will limit this discussion to a few highlights that took me aback while going through the literature on recent environmental change.[46] One way to visualise global warming is to picture 400,000 Hiroshima-sized bombs being detonated

[45] Oupa implied that the neoliberal present did not need 'an education system': 'Because the kind of attitude that you need to dominate others, you don't need an education system to do that, you just need the world of dog eat dog, of grabbing whatever you can'.

[46] The urgency of this topic can be gleaned from the titles of some of the most influential recent volumes on the subject that I consulted when writing this introduction—Amitav Ghosh's *The Great Derangement* (2016), Naomi Klein's *This Changes Everything* (2014), Bill McKibben's *Falter: Has the Human Game Begun to Play Itself Out?* (2019), Christophe Bonneuil and Jean-Baptiste Frezzoz's *The Shock of the Anthropocene* (2017), Elizabeth Kohlbert's *The Sixth Extinction: An Unnatural History* (2015) or Paul Dukes' *Minutes to Midnight* (2011). These titles speak to the urgent need to address environmental degradation felt right across the natural and social sciences as well as the humanities.

every day, or *four each second*—that is how many explosions it would take to produce the amount of additional heat stuck near the planet's surface due to the excessive carbon dioxide pumped into the atmosphere by humans (McKibben, 2019, p. 22).[47] Even though the 2015 Paris Agreement called for limiting anthropogenic climate warming to 1.5ºC (D. Klein, Carazo, Doelle, Bulmer, & Higham, 2017), the most recent UN report said this could happen only if 'rapid', 'unprecedented' and 'far-reaching' changes were made worldwide across all sectors (IPCC, 2018, p. 15). But humans are not the only ones in peril: one-third of reef-building coral, a quarter of all mammal, a fifth of all reptile and one-sixth of all bird species are expected to become extinct during the ongoing, human-made 'sixth mass extinction' (Kohlbert, 2015, pp. 15–17).[48] This is a crisis unprecedented in human history.

The scenes of the Tehri Dam and South Durban made the crisis seem palpable, prompting me to wonder how we got to this point. To achieve such harmony, such agreement on what is to be done with the earth and its resources across so many countries, cultures, languages is a feat that makes the Roman Empire's range seem trivial. The science and the engineering skill behind the megaprojects of modernity owe much to the phenomenon of mass education, as does the cultural sculpting that has been necessary to convert very different groups of people to a single gospel—that of endless economic growth within the context of neoliberal capitalism.[49] Education is not the only reason we are where we are, but it certainly is one of the main reasons.

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[47] Even though the term 'global warming' has been replaced by 'climate change' in public discourse, I continue using this term in my analysis. The term 'climate change', I believe, does not retain the political charge associated with 'global warming' and can be used to downplay the significance and urgency of the climatic changes since the 18th century.

[48] For comparison, the 'background' or expected rate of natural mammalian extinction is about 0.25 per million species-years (Kohlbert, 2015, pp. 15–17). Global warming is not the only factor responsible. Another key cause behind the mass extinction is the contamination of oceans, soil and the atmosphere with chemicals against which many endangered species are not evolutionarily equipped to defend themselves. 'A large number of substances that simply did not exist 150 years ago are now present everywhere in nature'; these include 'synthetic organic chemistry, hydrocarbons, plastics, some of which form a new type of rock, endocrine disturbants, pesticides, radionuclides dispersed by nuclear tests, fluoride gases' (Bonneuil & Fressoz, 2017, p. 13).

[49] By 'sculpting' I mean deliberate changes to cultural landscapes of societies, including through the medium of advertising, film, fiction writing and other channels through which consumer culture has spread worldwide.

Looking over the register of people considered to be the most influential thinkers on the subject of education,[50] I wonder who called for education to help jumpstart the Anthropocene?[51] Was it Socrates, with his dictum that the unexamined life is not worth living (Rembert, 1995, p. 98)? Immanuel Kant in his conception of moral education (Moran, 2009)? Friedrich Nietzsche, who believed that education is meant to bring us 'above the decadent values of mass culture' (Johnston, 1998, p. 74)? [52]We could keep going down the list, but the pattern is clear: none of these ideas points in the direction of the environmental destruction unleashed on the planet in the last two centuries. All these thinkers would likely be horrified to see the Anthropocene we have created. How, then, did education depart from the lofty goals of thinkers and align with violent forces of environmental destruction?

As with most such questions, history provides useful clues. For example, we can argue that slow violence and totalitarianism are largely products of imperialism, that Hitler's treatment of Europeans was fundamentally no different from the ways Europeans treated the rest of the world for centuries, and that anthropocenic violence is simply a progression of colonialism on a planetary scale (Lightfoot, Panich, Schneider, & Gonzalez, 2013; Malm & Hornborg, 2014; Yusoff, 2018b, 2018a). Schooling, too, can be viewed as an imperial imposition in much of the world, including in India and South Africa, and this history might account for its propensity to enable slow violence. I shall return to this argument, but I first would like to make the point that there are other common denominators between the 'fast violence' of Hitler's concentration camps or Stalin's gulags and anthropocenic slow violence. Arendt warns us that the most modern and most tyrannical of tyrannies is the rule of

[50] In selecting the examples of educational thinkers in this paragraph, I relied partly on my own knowledge of the field and the figures considered influential within it and partly on the register in the volume *Fifty Major Thinkers on Education: From Confucius to Dewey* (Cooper, Palmer, & Bresler, 2001).
[51] Education has been linked to economic growth (Leimbach, Kriegler, Roming, & Schwanitz, 2017; Tilak, 1989), which in turn ushered in the Anthropocene (Steffen, Broadgate, Deutsch, Gaffney, & Ludwig, 2015).
[52] Or Dewey (1965), with his idea of schools as 'embryonic societies' that helped to build and preserve healthy democracies? Or was it Steiner (2007) and his 'spiritual world' or, perhaps, Durkheim, with his concept of using socialisation to attain personal autonomy (Pickering, 2001)?

bureaucracy, 'or the rule of an intricate system of bureaus in which no men, neither one nor the best, can be held responsible, and which could be properly called rule by Nobody' (Arendt, 1970, p. 38). Or, as Amos Elon summarised in his introduction to *Eichmann in Jerusalem,* 'evil comes from a failure to think. It defies thought for as soon as thought tries to engage itself with evil and examine the premises and principles from which it originates, it is frustrated because it finds nothing there. That is the banality of evil' (Elon, 2006, p. xiv). If the term 'banality of evil' was an appropriate description of the Nazis' system of bureaucratisation against morality, it is just as apt to apply it to present-day slow violence. It is not that the ideas of Socrates or Dewey are used as a fig leaf to hide a worldwide conspiracy that seeks to turn schooling into a neoliberal brainwash (cf. Jain, 2013); rather, education itself has become bureaucratised, or at the very least it has failed to stand up to the self-destructive bureaucratisation of the globalised world.[53]

But, just as with Nazism, there is more to the human age than bureaucratisation and banality;[54] for example, there is the question of who is responsible for the scale of on-going slow violence. To illuminate this question, it is helpful to consider a brief history of the word 'Anthropocene'. It was famously used by geologist Paul Crutzen, who exclaimed at a conference of the International Geosphere-Biosphere Programme in Cuernavaca, Mexico, in February 2000, 'We're no longer in the Holocene but in the Anthropocene!'[55] He followed up with an article in *Nature,* where he argued that 'the stratigraphic scale had to be supplemented

[53] It certainly has contributed little to humanity's self-awareness of and control over the planetary transformation it is causing. For as Stoner and Melathopulos (2015, p. 108) argue, 'humanity is not self-consciously choosing to control such transformation. In modern capitalist society humans are not free to control their control of nature, nor can they control their own lack of control'. This is the banality of the Anthropocene.

[54] Arendt's notion of the 'banality of evil' has been hugely controversial (Elon, 2006; Rabinbach, 2004), partly because of the perception that it downplayed the historical factors contributing to the emergence of National Socialism in Germany. However, her narrative, most notably in the *Origins of Totalitarianism* (Arendt, 1962), explores these themes in great depth. In a similar vein, my historical analysis in this thesis (much of which is the subject of Chapter 4) seeks to historicise the bureaucratisation of education in India and South Africa, identifying historical factors contributing to the 'banality of the Anthropocene'.

[55] The Holocene is the current geological epoch (as the Anthropocene has not yet been officially recognised, largely due to disagreements about its beginning) which began approximately 11,600 years ago, following the melting of glaciers at the end of the Pleistocene.

by a new age, to signal that mankind had become a force of telluric amplitude' (Crutzen, 2002, p. 23).[56] Crutzen was not the first person to notice; in fact, the idea had been around for decades, if not centuries.[57] In the 21st century, however, the scientific community started taking the notion seriously and went looking for the beginning of the Anthropocene, trying to identify 'golden spikes'—the traces of human activity that are identifiable across the earth's crust. Many possible starting points have been proposed, some going back thousands of years, and while a decision has not been reached by the International Commission on Stratigraphy, three contenders seem to be in the lead:[58] 1610, a year that marks the lowest recorded levels of carbon dioxide; 1776, the year James Watt invented the steam engine; and 1945, which brought the Trinity test, the first detonation of a nuclear bomb (Barker, 2013) and the beginning of the 'Great Acceleration' of human activity on earth (McNeill & Engelke, 2014).[59]

All three years are intimately linked to colonial forms of extraction, and the debate remains influenced by Cold War ideologies.[60] Rather than a critical analysis of the power dynamics that led to the kind of Anthropocene we are now faced with, it revolves around who gets to claim primacy in 'winning' over nature (Yusoff, 2018a). For this reason, the controversy around the beginning year of this new age is of little relevance to my argument; what is more

[56] This brief article was followed by more elaborate analyses of the Anthropocene (Steffen, Grinevald, Crutzen, & McNeill, 2011; Steffen, Persson, et al., 2011; J. Williams & Crutzen, 2013), including analyses of the implications for human survival and the changes needed to avoid extinction (Costanza, Graumlich, & Steffen, 2007; Robin & Steffen, 2007; Rockström et al., 2009; Steffen, Crutzen, & McNeill, 2007).

[57] The discussion of a human epoch can be traced back at least to the late 18th century. The first identified instance of using the prefix 'anthropos-' to refer to a human epoch occurred in 1854 in a series of articles by the Welsh theologian and geologist Thomas Jenkyn (S. L. Lewis & Maslin, 2018, p. 31).

[58] The argument for locating the origins of the Anthropocene in ancient history is made by Ellis (2011), but this view is not among the 'mainstream' proposed beginnings (Dalby, 2016). For an overview of the different arguments for and against various dates, see Smith and Zeder (2013).

[59] By far not the last, however. The Marshall Islands experienced 12 years of nuclear bomb testing by the United States between 1946 and 1958. The total explosive power of these tests is estimated at 108 megatons, corresponding to 80 per cent of the yield of all atmospheric tests conducted by United States, and meant that the islands were subjected to the equivalent of 1.6 Hiroshima-sized nuclear bombs *every day* during this 12-year period (G. Johnson, 2009, p. 4). The radiation from these tests spread globally and can be detected in ice cores, which makes these tests an ideal candidate for a 'golden spike' at the start of the Anthropocene. The slow violence against the Marshallese—cancer, polluted soils, miscarriages and cultural decay—continues to this day, symbolising anthropocenic destruction perhaps more visibly than any other phenomenon (Sutoris, 2011).

[60] Referring to Marshall McLuhan's article proclaiming the end of Earth-Nature and the beginning of 'man-made' Earth in 1974, Bonneuil and Fressoz (2017, p. 60) argue that 'the scientific imaginary of the Anthropocene inherited ideologies, knowledge and technologies from the Cold War'.

pertinent is how we got to this point and how we can get out of here.[61] This is what Crutzen has to say about the latter: 'A daunting task lies ahead for scientists and engineers to guide society towards environmentally sustainable management during the era of the Anthropocene. This will require appropriate human behaviour at all scales, and may well involve internationally accepted large-scale geo-engineering projects, for instance, to "optimize" climate' (Bonneuil & Fressoz, 2017, p. 81).[62] This might seem commonsensical in the context of the current obsession with technology as a panacea for all of humanity's problems, but there is, in fact, nothing self-evident about Crutzen's proposed solution.

The Anthropocene represents people's control over nature, and 'optimizing' climate or large-scale geoengineering are ways to further increase control.[63] The Anthropocene is not just about hard science; it is a cultural and political phenomenon, and the answers as to why control is at the heart of it can be gleaned from Amitav Ghosh's incisive analysis of 20th-century literary trends:

> *Jawaharlal Nehru's passion for dams and factories and Mao Zedong's 'War on Nature' had their counterparts also in literature and the arts . . . In Asia, as elsewhere, this meant that the abstract and the formal gained ascendancy over the figurative and the iconographic; it meant also that many traditions, including those that accorded the non-human a special salience, were jettisoned. Here, as elsewhere, freedom came to be seen as a way of 'transcending' the constraints of material life—of exploring new regions of the human mind, spirit, emotion, consciousness, interiority: freedom became a quantity that resided entirely in the minds, bodies, and desires of human beings. (A. Ghosh, 2016, p. 161)*

[61] The choice of the beginning date does, however, affect the issues that are highlighted in the discourse on the Anthropocene. For example, if the 1950s are the beginning, the focus is more likely to be on nuclear weapons, consumerism and plastics, whereas an 18th-century beginning would put the spotlight on fossil fuels.
[62] Quoted from Crutzen and Stoermer (2000, p. 18).
[63] Humanity is, thankfully, a long way away from complete control of the planet. As Davies (2016, p. 28) rightly points out, 'the Anthropocene does not put an end to natural history. On the contrary, it locates the present firmly within the geohistorical narrative first conceived of in the time of the French Revolution'.

This literary imaginary also has its counterpart in 20th-century political regimes across the world that, as James Scott (2008) pointed out, revolved around 'high modernism', which meant achieving total human control over nature, including human nature. The Anthropocene is not accidental; it was willed into being through an imagining of anthropogenic hegemony.

This context allows us to tackle the question of responsibility for the Anthropocene's onset. Seeing a homogeneous *anthropos* as the reason behind the planet's new geological era would be a massive oversimplification. 'This explanation might be sufficient for polar bears or orangutans seeking to understand what species was disturbing their habitat',[64] but it is hardly sufficient for people who understand that the planet is at stake and wonder what to do about it. Besides, claiming that humanity at large is responsible for the destructiveness of the Anthropocene is not merely simplistic but a form of epistemic violence.[65] Kathryn Yusoff (2018a, p. 12) writes, 'To be included in the "we" of the Anthropocene is to be silenced by a claim to universalism that fails to notice its subjugations, . . . legitimating and justifying the racialized inequalities that are bound up in social geologies' (Yusoff, 2018a, p. 12).[66] The Anthropocene, in other words, is a seductive idea: while invoking apocalyptic visions, it also conveys a certain pride, a recognition of humankind's (but, really, just a small part of humanity's) ability to subjugate and transform that which is 'sub-human'[67] (non-white

[64] Bonneuil and Fressoz (2017, p. 66) borrowed this joke from Malm and Hornborg (2014, p. 67).
[65] For example, cumulative emissions by Great Britain and the United States amounted to '60 per cent of cumulative total emissions to date in 1900, 57 per cent in 1950 and almost 50 per cent in 1980' (Bonneuil & Fressoz, 2017, p. 116). It might therefore be more appropriate to rename the Anthropocene to 'Anglocene' (2017).
[66] For a different point of view, see Dukes (2011), who argues that, given the urgency of the environmental crisis, 'good and evil, praise and blame, are concepts that must be jettisoned in an understanding of scientific history that is the imperative of the Anthropocene Era as it threatens to come to an end' (p. 132). This argument is, needless to say, at odds with my conception of educating for the Anthropocene, and its underlying logic is, arguably, one that caused the environmental crisis in the first place.
[67] Aside from 'Anglocene' (see above), another alternative term to characterise the unequal contribution of different groups of people to the current crisis is Erik Swyngedouw's 'Oliganthropocene', 'a geological epoch caused by a small fraction of humanity' (Bonneuil & Fressoz, 2017, p. 71). A discussion of what the *Anthropos* in the Anthropocene refers to can be found in Usher (2016).

people,[68] the natural environment, plants and animals).[69] Efforts to 'fix' the Anthropocene that do not acknowledge these realities signal 'a desire to overcome coloniality without a corresponding relinquishing of the power it continues to generate in terms of who gets to formulate, implement, and speak to/of the future' (Yusoff, 2018a, p. 27). Put simply, it is more of the same.

Although this critique is very relevant, the concept of the Anthropocene is still an invocation for interrogation within the body of this ethnography—indeed, even to be included in its very title. While Yussof's proposed alternative—'a billion black Anthropocenes'—is helpful in addressing the racialised and imperial sediments that give this new era its distinctive character, a singular shared conception of the Anthropocene (one which acknowledges its imperial genetic make-up) enables us to focus on the gravity of the predicament facing the planet and its inhabitants. In this respect the 'we' of the Anthropocene is truly all-encompassing of those currently alive and all those not yet born.

But education's response to the Anthropocene is not just a philosophical question; it has direct consequences for development. By 'development', I mean efforts to improve the quality of life of people living in the Global South, and since there are pockets of this South in what is usually considered the North or the West, this is truly a global phenomenon of which

[68] During the imperialist age, an '"environmental orientalism" reserved the "external" influences of the environment on human history to discourses on "less advanced" societies, as a counterpoise to an industrial society moved above all by an "internal" logic of progress' (Bonneuil & Fressoz, 2017, p. 31). The 'external' influences now often take the form of toxic byproducts of modernity (such as e-waste) exported to the Global South, which shows that 'environmental orientalism' (and indeed 'environmental racism') that dehumanize the non-white Other are still at play.

[69] We may marvel at the Anthropocene in the same way that we marvel at the ingenuity of a skilled criminal, although at least those of us who consider themselves part of the 'white liberal communities' are bound to, somewhere, consciously or unconsciously, also feel a sense of racial pride and dominance which is part of our socialisation and cultural programming. The Anthropocene is an idea which can lead us down the path of imagining a White Saviour 'saving' the planet—arguably the dream of many in the Silicon Valley with their plans to solve the environmental crisis through technology alone, including by colonising deep space. Perhaps the most notorious among the barons of Silicon Valley is Elon Musk. The title of his recent article, *Making Humans a Multi-Planetary Spacies* (Musk, 2017), speaks for itself.

education is an integral part.[70] Arguably, the contemporary educational development landscape—which is marked by the often extrajudicial globalisation of the models and practices of education governance (Ball, 2012; Komljenovic & Robertson, 2017; Robertson & Komljenovic, 2016), the advance of privatisation and new financial models for managing state life (Nambissan, 2010, 2012; Nambissan & Ball, 2010; W. C. Smith & Joshi, 2016; Tooley, 2013; Woodhead, Frost, & James, 2013), transnational neoliberalism (Au & Ferrare, 2015; Ferguson & Gupta, 2005; Thapliyal, 2016)[71] and testing regimes (Morgan, 2016; P. Morris, 2015)—can hardly be considered to be strengthening 'the political'.[72] My key argument in this thesis—which echoes the concerns of both educators and activists in India and South Africa and reflects the gaps between the practice of education and the effects of slow violence both locally and globally—is that this landscape needs to be remodelled in order to unleash education's potential to politicise (decolonise, humanise, repurpose) the Anthropocene.

Given education's propensity to reproduce the social and economic status quo,[73] however, is it realistic to expect that it could align itself with the 'right side of the barricade' and reorient itself toward 'educating for the Anthropocene'? In the next chapter I review

[70] Such 'crossing over' has been identified, for example, by John Gaventa (1999, quoted in Gardner & Lewis, 2015, p. 41) in his research on the patterns of exploitation among Appalachian communities in the United States and labourers in Mexico.

[71] For the purposes of my argument, I am relying on Harvey's (2007, p. 22) definition of neoliberalism as a 'theory of political economic practices proposing that human well-being can best be advanced by the maximization of entrepreneurial freedoms within an institutional framework characterized by private property rights, individual liberty, unencumbered markets, and free trade. The role of the state is to create and preserve an institutional framework appropriate to such practices'.

[72] If anything, the decentralisation of the state is what Sassen (2017) predicts when she argues that we are witnessing new geographies of centrality at work in dividing and conquering any attempt at solidarity over slow violence—in fact, the Global North is indeed witnessing its own rendition of this in the liminal post-development spaces of the so-called West.

[73] The reproductive nature of education has been theorized by Bourdieu (1990) and is supported by numerous empirical studies. For example, in 'Is a Ragpicker's Child Likely to Be a Ragpicker?' Venkatesh Murthy (2015) argues that teachers' attitudes toward children from poor backgrounds can be the decisive factor in preventing these children from accessing quality education. In her ethnographic study of schools in Northern India, Karuna Morarji (2014) has argued that 'parents and youth negotiate competing notions of individual and social value and productivity, while teachers face contradictions between imperatives of inclusionary development and the maintenance of class- and place-based boundaries' (p. 177). According to Morarji, schooling is a 'contradictory resource' which, while promising social mobility, does not provide the cultural capital needed for the rural educated child to 'succeed' in India's urban economy, while at the same time 'disinherit[ing] local youth from local forms of cultural and economic capital valued in a rural mountain context' (Morarji, 2014, p. 186).

literature and theoretical tools that can shed light on this question, but for now I would like to bring Hannah Arendt back into the discussion. In her post-mortem of the Nazi regime (and Eichmann's trial in Jerusalem), she asserted that totalitarianism sought to create 'holes of oblivion into which all deeds, good and evil, would disappear . . . The holes of oblivion do not exist. Nothing human is that perfect, and there are simply too many people in the world to make oblivion possible' (Arendt, 2006, pp. 232–233). The more time I spent at my research sites, the more I felt this sentiment, and the more potential I saw in the interface between education and activism. For all its gloomy content, this thesis seeks above all to illuminate the often unnoticed but important corners of hope where there is no space for oblivion. They might just help us survive the Anthropocene.

Chapter 2.
The Anthropocene, Historical Responsibility and Education

The sad truth is that most evil is done by people
who never make up their minds to be good or evil.

Hannah Arendt (1984, p. 28)

Few people would dispute that the slow violence we are witnessing in the Anthropocene calls for action. But how do we determine what action should be taken? As I outlined in the previous chapter, the conventional wisdom of addressing environmental degradation by increasing humanity's control of nature hardly seems wise, given that such an approach is what got us here in the first place. In this chapter, I review several bodies of literature across multiple disciplines which support the application of an Arendtian understanding of politics to explore this question and suggest that an ethnography of the interface between education and activism will help to fill an important gap in knowledge. To the best of my knowledge, a multi-sited ethnography studying this interface has not been conducted to date—despite the fact that (de)politicisation of ESE is a transnational phenomenon. Such an ethnography requires a theoretical foundation for understanding the (de)politicisation of education, something I learned by cultural immersion in the field. In line with the literature reviewed in this chapter, I advance a framework rooted in the ideas of Arendt, Ricœur and postcolonial scholars. Together these authors promote the kind of thinking that is necessary for action through an account of historical responsibility as it pertains to education in the Anthropocene.

Given the burden of responsibility we find ourselves carrying in the human age and the political nature of determining what action we should take, one of the most important questions facing educators today is arguably the nature of education's impact on learners' political imaginaries, or what Ricœur (1984) would refer to as a political and symbolic imaginary. This

Figure 14: A dead tree in Pashulok

question touches on young people's capacity to envision alternative ways of living and knowing and bring them into being. It has crucial implications for the ability of ESE to help humankind preserve its future, and the future of the environment (Hungerford, 2009; Marcinkowski, 2009; Tilbury, 1995; Van Poeck, Goeminne, & Vandenabeele, 2016; Van Poeck & Östman, 2017). It has long been recognised that formal education has a propensity to reproduce economic and political systems (Bourdieu, 1990). This can be seen in education systems' increasing alignment with advanced neoliberal agendas (Au & Ferrare, 2015; Ball, 2012; Morgan, 2016; Robertson & Dale, 2015), including notions of infinite growth and the idea of nature as an object of instrumental value.[1] Under these conditions, the sustainability promoted by schools may actually undermine genuine efforts to promote environmental sustainability (Huckle, 2008; McKenzie, Bieler, & McNeil, 2015). Students are, 'broadly

[1] 'Nature' as an idea or an object has, interestingly, also played little role in ESE policy, which is often anthropocentric (Bonnett, 2007).

speaking, obligated to comply in a largely "apolitical" manner with behavioural norms that facilitate the continuance of the current social/political system' (M. Smith, 2005, p. 51). ESE programmes are often part of the problem rather than the solution.[2]

As my research applies an anthropological lens to the issue of (de)politicising ESE,[3] I begin the discussion in this chapter by reviewing relevant literature in the fields of anthropology of education, the environment and social movements.[4] I argue that these fields, while offering valuable methodological and empirical insights into schooling, activism and the environment, neither consider fully the implications of the Anthropocene era—and the associated responsibility for the environment it puts on states, institutions and individuals—for formal education systems nor engage extensively with the notion of activism as a form of political pedagogy. Crucially, the existing literature appears to pay little attention to states' ability to thwart social movements, a dynamic that becomes visible when activism and schooling are studied alongside each other as they operate within spaces of political contestation such as Pashulok and Wentworth.

The second section reviews several bodies of literature in the fields of education, sociology, development studies and environmental studies that are relevant to the study of the interface of the Anthropocene, schooling and activism. I argue that this literature points to the lack of transformative potential of action within the context of 'sustainable development', the mainstream paradigm of contemporary development policy. I then show that the literature in

[2] In shying away from difficult conversations about subjects like consumerism, definitions of 'individual' and collective 'success', environmental justice and the role neoliberal capitalism plays in undermining global sustainability, 'apolitical' ESE can obscure learners' understanding and effectively become a form of greenwashing (cf. Lyon & Montgomery, 2015).

[3] I acknowledge that most ESE is neither political nor apolitical and consists of a constellation of content and pedagogic practices that have both politicising and depoliticising effects on learners. My intention is not to create a dichotomy; I use the term 'apolitical ESE' to denote educational practice that, analogous to the implementation of handprint I witnessed in several sites at the beginning of my research, foregrounds individual responsibility and de-emphasises collective, political solutions to the environmental crisis.

[4] Anthropology of the state is also relevant to this project, and I review some of the literature in that field as it applies to India and South Africa specifically in Chapter 4.

the field of ESE/ESD/EE (Environmental Education)[5] calls for politicisation and acknowledges the paucity of empirical research in this area, a gap that my work aims to help close.

In the third and final section of this chapter, I present the theoretical framework that underpins my research design and analysis and seeks to help fill these gaps. I apply the notion of historical responsibility to 'apolitical' ESE in order to demonstrate phenomenology's analytical ability to illuminate the mechanisms that are shaping the subjectivities of the political imaginary which young people express, whether as a submerged feature or explicitly.[6] This enables me to build a grounded theoretical framework for the politics of ESE interventions that brings together three elements: the notion of historical responsibility rooted in the work of Paul Ricœur (1984), the idea of action as theorised by Hannah Arendt (1998) and a 'hermeneutics of sustainability' within the postcolonial condition.[7]

I argue that this framework is best operationalised through collaborative and critical ethnography (Lassiter, 2001, 2005; Tedlock, 1991), which can make a significant contribution to ESE research, due to its ability to generate knowledge coproduced by the researcher and the researched. The ethnographic method is uniquely positioned to move the field beyond a binary understanding of ESE interventions as politicising or depoliticising, and to study what the politics of ESE might mean in different cultural, social and economic contexts (e.g., Arendtian politics vs. the political project of infinite growth). Such understanding is in turn key in identifying the ways ESE programmes in postcolonial settings affect the political imaginaries of learners which, my research suggests, is a crucial consideration in designing and implementing interventions aimed at helping humanity preserve its future and the future of the

[5] Apart from ESD and ESE, EE is also used to refer to interventions focused on the environment. There are differences between the terms but there appears to be no consensus in the literature on these. I opted to use the category of ESE in this thesis, as it is the broadest of the three, encompassing a range of interventions that in some way touch on the environment.

[6] Reflecting on 'apolitical' ESE allowed me to pursue a theory of ESE's potential to (de)politicise environmental concerns and to in turn (de)politicise ESE research and practice.

[7] By the postcolonial condition I mean the historical baggage (e.g., exploitation, racism, violence and uneven power relations) affecting much of the Global South, as discussed in the works of scholars such as Spivak (2010), Said (1979), Fanon (2004), Nandy (2015) and Mignolo (2018, 2011).

earth. A critical, collaborative multi-sited ethnography of the interface between education and activism in Pashulok and Wentworth has the potential to advance our understanding of the ways in which learning (and unlearning) can help curb the slow violence of the Anthropocene.[8]

2.1 Anthropology, activism and the environment

There appear to be few bridges in the literature between anthropology and ESE research. In this section, I highlight some of the areas where anthropology—particularly of social movements, education and environment—can contribute to a deeper understanding of the (de)politicisation of the environment through education. Given the current disconnect between these fields, this is the main focus of this section.[9] At the end of the section, I discuss the limitations of the anthropological studies in order to highlight the contributions this work makes to methodology, and to epistemology in particular.

Anthropology has a long history of studying various forms of activism (Edelman, 2001; Nicholas, 1973), often linking localised social movements to macro-level economic and political regimes (Nash, 2005). In fact, given the discipline's orientation toward research about the relationship between the local and the global (Tsing, 2005), many anthropological studies focus on the theme of resistance which is central to activist efforts. For example, Comaroff (1985), in his ethnographic study conducted among South Africa's Tshidi people, argued that African Zionism could be seen as a form of resistance against a creeping neocolonial order. Scott's (1977) classic study about the 'moral economy of the peasant' in Burma and Vietnam traced peasant resistance to innovation back in time to colonial-era changes to the agrarian

[8] I return to the relevance of the idea of unlearning, particularly the work of Ivan Illich, to educating in the Anthropocene in the conclusion.

[9] While compiling this literature review, I was only able to identify a handful of studies that applied ethnographic methods to ESE and have not come across any that studied the interface of schooling, activism and education ethnographically.

economy. Even where social movements are not the main research focus, anthropology has frequently engaged with people's reluctance to accept the unacceptable.

Many ethnographies have examined such dynamics specifically in the context of activism. While anthropologists have studied activist movements worldwide, Latin America emerged in this literature as a particularly rich region, including ethnographic studies of movements championing resistance to neoliberal reforms in the wake of economic decline and structural adjustment in the 1980s (Escobar & Alvarez, 1992), and prodemocracy movements in post-Pinochet Chile (Paley, 2001). The region's cultural diversity and these movements' various political agendas enabled anthropologists to study the interface of culture and politics (Alvarez, Dagnino, & Escobar, 1998) in the context of political contestation—dynamics shared across societies with colonial histories and socio-economically ruptured presents.

Arturo Escobar, perhaps the most prolific anthropologist studying social movements in Latin America, demonstrates the potential of ethnographies of activism to illuminate the complex, multi-scalar dynamics at play in spaces of environmental contestation. He posits that 'place-based struggles might be seen as multi-scale, network-oriented subaltern strategies of localization' (Escobar, 2001, p. 139). In his ethnographic research with Afro-Colombian activists in the rainforests of Colombia's Pacific Coast, who call themselves *Proceso de Comunidades Negras* (PCN), Escobar argues that, for this group, 'biodiversity equals territory plus culture' (Escobar, 2008, p. 146). They see territory as a 'multidimensional space for the creation and re-creation of the ecological, economic, and cultural practices of the communities'. The movement, therefore, 'links past and present'. This analysis echoes Ricœur's concept of historical responsibility and the 'debt to the dead', as well as Arendt's notion of politics as a form of action that demands a connection to others.[10] It is perhaps not surprising that Escobar identifies an understanding of sustainability among these activists that

[10] Including those others we may have never known in the past or the present.

is very different from the 'sustainable development' paradigm. PCN sees sustainability within a 'biophysical and cultural context and in relation to the empowerment of local groups, not in the commodified and decontextualized terms of much of the official discourse and the idioms of genetic resources and intellectual property rights' (Escobar, 2008, p. 153). Escobar concludes that social movements have the capacity to contest cultural constructions of 'nature': 'If it is true that the task of philosophy is . . . a construction of life possibilities through novel practices of thought, imagination and understanding[11]—and that this task today entails a recasting of the resistance to capitalism, activists in the world's rainforests may keep alive the dream of other peoples and lands of the future' (Escobar, 1997b, p. 61). This idea resonates with Ricœur's notion of the horizons of the possible and suggests that place-based activism may in some cases expand these horizons through political imaginaries rooted in a temporal arc of the present, past and future of nature, place and space.

Another area where anthropology of social movements can enrich the understanding and practice of the political is through socially engaged methodologies that seek to dislodge scholarship from the ivory tower of academia and move it closer to the concerns of research participants. The idea of anthropologists as interventionists who seek to generate research relevant to resolving ongoing social issues connects with the tradition of 'public anthropology' which has, at least in the United States, seen a renaissance since the events of 9/11 (Checker et al., 2011).[12] More recent events pushed the field further in the direction of social engagement, as Haugerud (2016, p. 595) points out in her analysis of 2015, the 'year of crises':

> *An Ebola outbreak becomes part of colonial and postcolonial histories of economic marginalization, civil strife, and geopolitical polarities. A terror attack is not reducible*

[11] In the original text, Escobar references Deleuze and Guattari (1993) as the source for this version of philosophy's purpose.

[12] According to Checker, Vine and Wali (2010, p. 5), 'the past decade has brought a more widespread and concerted movement among students, academics, and practicing anthropologists alike. They are insisting that anthropologists regain, reinvigorate, and institutionalize the political and social engagement that has been a part of the discipline almost from its beginnings, including the antiracism of Boas through the antiwar and feminist movements of the 1960s and 1970s'.

> *to supposedly inevitable religious hatreds, cultural differences, or a 'clash of civilizations'. Poverty is reframed in relation to histories of structural violence rather than putative cultural deficiencies, and wealth inequality is shown to be the outcome of policy decisions rather than natural Darwinian processes . . . Finally, public anthropology grounded in ethnographic research reveals the compassion, care, and solidarity that have long sustained our species.*

What might such engagement look like on the ground, aside from shaping public discourse in the ways identified by Haugerud? Perhaps the work of David Graeber, a leading figure of the Occupy Wall Street movement (Hammond, 2015), is the starkest contemporary example of activist ethnography and public anthropology. On the one hand, Graeber studies activists. For example, in his ethnography of anarchist movements, he argues that what sets activists apart from established state authorities is their 'political ontology of the imagination', which is creative in nature and capable of picturing different worlds (Graeber, 2009, p. 512).[13] On the other hand, Graeber does not stop at description and turns his research into an activist intervention; in his book on Occupy (2009), for example, he includes a chapter entitled 'How Change Happens', in which he distils his findings into tangible advice and practical suggestions for activists about the most effective methods of horizontal organising. Elsewhere, Graeber advocates for anarchism as the solution to the crisis of Western democracy (Graeber, 2007). Here, Graeber's work echoes the sentiment expressed by Lockyer and Veteto (2015, p. 24) that 'much of anthropology is fundamentally guided by a moral compass: a utopian impulse to contribute to change in the world guided by our accumulated knowledge of the forces and factors that create human suffering or flourishing'.

Perhaps due to its troubled history, characterised by lopsided power dynamics and motivations inspired by the 'white man's burden', particularly during the colonial era (Diane Lewis, 1973; Sibeud, 2012), anthropology has developed tools to curtail the paternalism that

[13] This argument is similar to his characterisation of the Occupy movement as having 'radical imagination' (Graeber, 2013).

may come with ‘acting’ on behalf of study participants. One such technique is the coproduction of ethnographic knowledge. According to Lockyer and Veteto (2015, p. 3), in ‘mov[ing] beyond disengaged cultural critique . . . anthropologists can be co-creators, with engaged practitioners of our research projects, in the cultural process’. Anthropologists of education have applied the idea of coproduction to their engagement with children, who can become active participants in generating anthropological knowledge about education (Milstein, 2010)—a process at the heart of participatory observational filmmaking by children, a tool pioneered by David MacDougall (2006) that is an important part of my methodology.

Nevertheless, ideas of socially engaged and activist ethnography raise important methodological and ethical questions. For example, how can ethnography, as a form of in-depth, ‘slow’ research (cf. Adams, Burke, & Whitmarsh, 2014), deal effectively with ongoing crises that call for ‘fast’ writing (Bonilla, 2015)? Applying ethnographic tools to unfolding social issues may mean trade-offs between depth and speed. Or, to what extent are anthropologists able to carry out their stated goals of having a positive impact on their interlocutors’ lives? As Melissa Checker (2014, p. 418) has pointed out, public anthropology has created ‘a new myth—that of the publicly engaged scholar who, in addition to teaching, administrating, and providing service, also identifies, analyzes, and resolves social problems’. Not only does this seem a superhuman task but, according to Checker, ‘our powers are limited, and they certainly do not extend to the ability to change the terms of grassroots struggles or to intervene in the political-economic forces that are arrayed against [our informants]’. Yet, Checker does not advocate giving up on activist scholarship; she merely calls for a rethinking of one of its underlying assumptions, ‘that we have access to the kind of resources that will transform our informants’ lives’. In other words, humility is in order.

Anthropologists of the environment have seized on the discipline’s engagement with social movements. Even though the natural environment has played a crucial role in

ethnographic research from its inception, anthropology has played only a limited role in shaping debates about the environment. In Milton's (1996, p. 6) words, 'the relative absence of anthropology from environmental discourse should be a cause for concern, given that a great deal of the knowledge generated by anthropological research, particularly on the ways in which people understand and interact with their environments, could be of value in the search for solutions to environmental problems'. This is changing, however, and since Milton's writing, the anthropological gaze has engaged with such subjects as the politics of climate change movements (Rosewarne, Goodman, & Pearse, 2015) or German environmental pressure groups and Green politics (Berglund, 1998). Anthropologists have written 'ethnographies of ecological underprivilege' (D. G. Anderson & Berglund, 2003, p. 15) that affects marginal social groups in the context of nature conservation and 'ethnographies of sustainability' (Krate, 2006) among indigenous groups, such as the Viliui Sakha of northern Russia. These people's survival has depended on the 'work of sustainability', a balancing act in which they 'have been and continue to be challenged to balance a resilient adaptive capacity with the forces of globalisation and modernity' (Krate, 2006, p. 295). These studies have demonstrated the great potential of applying the tools and insights of anthropology to environmental issues to generate knowledge that may not only advance the discipline itself but also help us more effectively confront the challenges of the Anthropocene.

Apart from studying adaptation and large-scale political movements, anthropologists have turned to grassroots resistance to environmental threats in disadvantaged communities. Melissa Checker's (2005) account of the activism of the Hyde and Aragon Park Improvement Committee (HAPIC), a group fighting against industrial pollution in a black neighbourhood in Augusta, Georgia, is an indictment of the environmental racism in the United States almost a

century and a half after the abolition of slavery.[14] For the residents of Hyde Park, the environment 'represent[ed] both toxic poisons and the social poison of racial discrimination, and seeking environmental justice mean[t] overcoming a long and vicious history of racism in America' (Checker, 2005, p. 103). As a result, activism here had a particular flavour and 'was broadly conceived—drugs, violence, education, employment, police protection, litter, and pollution were all tied together in an intricate knot bound up in historical discrimination' (p. 101). To HAPIC, the environment meant more than nature, and the historical configuration of power and disadvantage in Hyde Park meant that 'sustainable development' was not forward-looking but concerned primarily with redressing the injustices of the past that were throwing a shadow over the present. The group was engaged in a process of localising definitions of concepts like sustainability and justice, something that called for active participation akin to Arendt's agonistic pluralism. As Checker (2005, p. 147) noted, 'whether that participation meant strategizing, griping, sharing memories, or even dissenting, HAPIC members made sure that enough time was taken for all voices to be heard. For, as one activist once told me, "That's what democracy is all about."'

The fight against industrial pollution in Augusta generated a space of Arendtian politics which not only fought the toxic chemicals in the air but opened up a paradigmatic alternative to a racist, bureaucratised state system that enabled environmental decay in the first place. Checker's research shows that grassroots environmentalism in spaces of historical disadvantage has important lessons to teach us about bringing Arendtian politics to our response to the Anthropocene—a potential that my project seeks to harness in my study of

[14] I review Checker's study in detail, as it is most directly relevant to my research, but other ethnographic work in this area has been very influential in anthropology and beyond, perhaps most notably Kim Fortun's (2012) *Ethnography in Late Industrialism,* a study of the activist response to the 1984 Bhopal disaster in India (to which I return in Chapter 4) and Adriana Petryna's (2003) *Life Exposed* on the aftermath of Chernobyl.

SDCEA, an organisation in Wentworth much like HAPIC, whose history of environmental racism in many ways parallels that of Hyde Park.[15]

Other anthropologists have taken a more radical approach to environmentalism than Checker, arguing for the discipline's engagement with the idea of ecotopia, a green, eco-friendly utopia in which humanity has stopped undermining the earth's ecosystems by replacing infinite growth by a steady-state economy (Lohmann, 2018).[16] In an influential collection of essays, *Reinventing Anthropology* (Hymes, 1974), E. N. Anderson (1974, p. 281) argued for the discipline to engage with this notion, sounding a cautionary note: 'The ivory-tower approach and the dream of pure science will not survive; either we abandon them and work for preservation, or we shall be destroyed'. Two decades later, Fox (1989) built on these ideas by exploring a 'Gandhian utopia', bridging the Western conception of ecotopia and Gandhian economics. Later, Lockyer (2009) argued that the goal of anthropology's engagement with ecotopia was not to build a utopian world but to help humanity incrementally move toward one, even if it is ultimately not reachable. Lockyer and Veteto (2015, p. 2) put it even more pragmatically:

> *Our effort to bring together solution-focused instead of problem-oriented work does not suggest a move away from critical analysis. Rather, it reflects an acceptance of the severity of social and environmental problems, a recognition that solutions are already being developed from the bottom up, and a realization that these grassroots solutions can potentially be strengthened and made more viable through academic analysis.*

In their work, Lockyer and Veteto (2015) used the examples of bioregionalism, permaculture and the ecovillage movement as some of the solutions to the environmental unsustainability of human societies that could be 'strengthened' through anthropological analysis. My research

[15] I deal with the subject of the history of racism in Wentworth in detail in Chapter 4.
[16] The term 'ecotopia' was widely popularized by Ernest Callenbach's (1978) novel *Ecotopia,* in which he imagined a utopian world in 1999. Apart from having an influence in anthropology, the novel helped to shape 1970s green counter-culture (Lohmann, 2018).

resonates with this logic, but instead of permaculture, I explore the potential of activism to strengthen the Arendtian politicisation of young people.

A research agenda that aims to bring the analytical rigour of ethnography to the interface between education, politics and activism helps to fill some of the gaps in the literature. Scholars have called for turning attention from documenting social inequality toward 'documenting attempts by educators to construct social equality' (Mehan, 2008, p. 78) and toward recognising social movements as alternative education spaces (Mein, 2009).[17] As Niesz et al. (2017, p. 3) point out, 'education is fundamental to social movements, and movements are fundamental to education'. They note that movements themselves can be thought of as educators, and yet, 'social movement-focused educational research lacks the structure, identity, profile, and networks of a field of scholarship' (Niesz et al., 2017, p. 1).[18] According to Eyerman and Jamison (1991, p. 161, quoted in Niesz et al., 2017, p. 30), the 'forms of consciousness that are articulated in social movements provide something crucial in the constitution of modern societies: public spaces for thinking new thoughts, activating new actors, generating new ideas'. Niesz et al. (2017, pp. 30-31) 'take this to mean that before social movements can move people, institutions, and culture in their fight to shape the future, they must move ideas. The educational implications of this statement are immense. Our scholarship as educational researchers ought to reflect this'.

Indeed, the available ethnographic research on the education/activism interface is in short supply. Existing studies mostly focus on tertiary education or activism in the context of youth cultures. Kennelly (2011), for example, has explored the link between models of citizenship for youth and activist efforts in Canada. Meek's (2015) study of the Brazilian

[17] For example, in March 2008, *Anthropology and Education Quarterly* issued a special issue on 'activist educational anthropology'.

[18] As Niesz et al. (2017, p. 2) point out, 'movements themselves are educators, engaging participants in informal education (through participation in movement activity), non-formal education (through the educational initiatives of the movement), and even, sometimes, quasi-formal education (through special schools within movements)'.

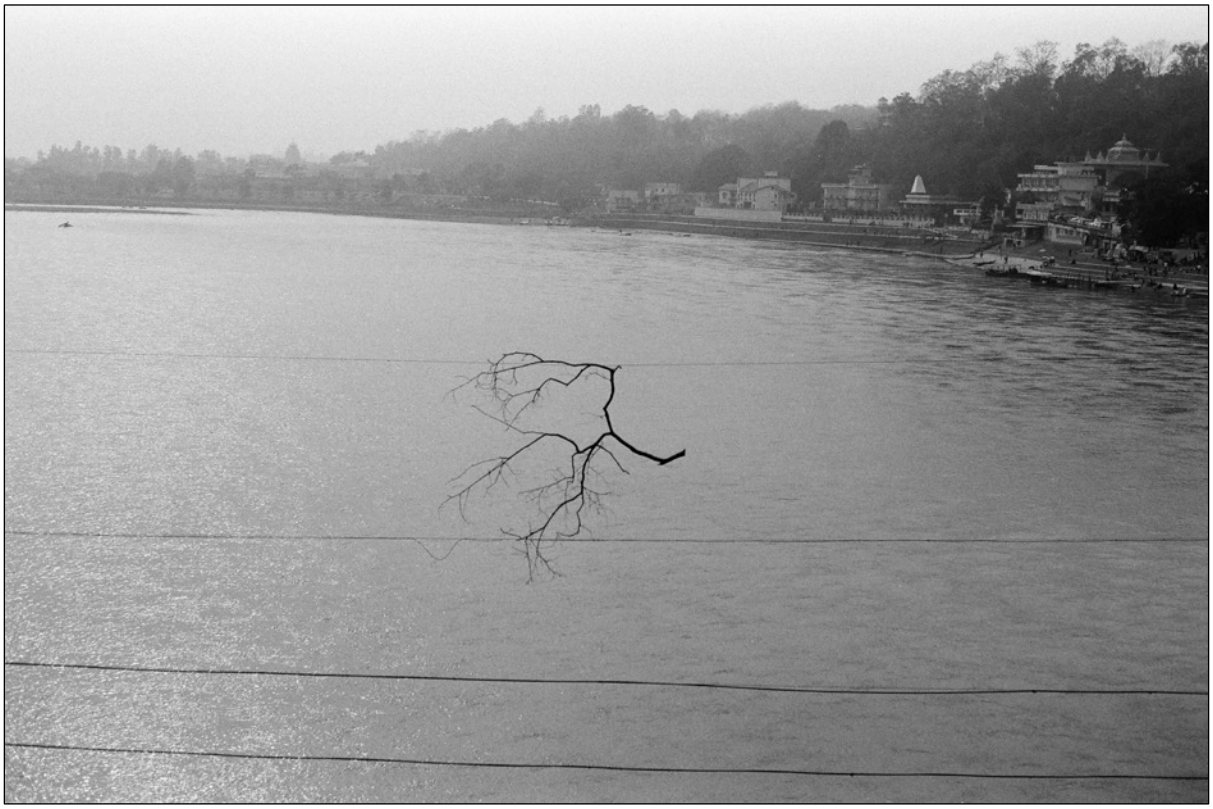

Figure 15: A branch stuck above the Ganges near Tapovan

Landless Workers' Movement in Pará, Brazil has shown multiple mechanisms through which activism shapes education, including the movement's collaboration with educational institutions in developing 'radical' education spaces, the ability of 'activist professors' to mediate between state and activist agendas, and recurring environmental events that have led to the establishment of graduate degree programmes and environmental education institutions. Meek (2015, p. 447) argues that these factors have resulted in 'a gradual anti-neoliberal transformation in southeastern Pará's rural educational opportunities'.

Such localised transformations, however, are not sufficient for neoliberal ideologies to be subdued. Neoliberalism (and other ideologies that have contributed to anthropocenic slow violence) operates locally and at the state and intrastate levels; it also has moulded cultures around the world, establishing tropes of materially 'successful' lives and shaping expectations

of 'good' employment,[19] that in turn impact the kind of schooling demanded and offered in the education marketplace.[20] Therefore, to more fully understand the transformative potential of activism as political pedagogy, we need to go beyond the approaches of Meek (2015) and Checker (2005) outlined above and explore the 'friction' (Tsing, 2005) at the interface of the state, activism and education. This means utilising the potential of a multi-sited and multi-scalar approach to ethnographic research which helps us identify the educational potential of activism and schooling by studying the liminal spaces in which they meet the state. Put differently, we can understand their potential better by studying the limits placed by the states on schooling and on activism's politically transformative potential—as well as the cultural, historical and globally ideological landscapes in which they operate. Such an approach has the potential to substantially enrich the anthropological literature about the interface of activism and education.

Given that the social change required to address anthropocenic slow violence might need to be on a scale unprecedented in history, further research in this area is crucial. A comparative ethnographic study of education and activism in two sites of enviro-political contestation, such as this one, has the potential to make a significant contribution to closing the gap, to generate theoretical and methodological innovation, to advance the fields of education and anthropology and to catalyse conversations between educators and activists, whose synergistic efforts may prove key to helping education do its bit in getting us through the challenges of the Anthropocene.

[19] This has led to the paradox of 'bullshit jobs' (occupations that those holding them themselves see as meaningless but which are often highly prized in society and seen as markers of success and prestige), as explored by Graeber (2018).

[20] To a lesser degree, they also shape government-run schooling systems, to the extent to which governments are responsive to the demands of their constituencies.

Figure 16: Seema Primary as a liminal space

2.2 'Solving' the Anthropocene: 'Sustainable development' and action

Having established the potential of anthropological research to aid in the understanding and practice of the politics of education in the Anthropocene era (as well as some of its limitations), I now turn to the subject of my research to pinpoint why studying it matters. I argue that the current dominant paradigm of 'sustainable development' that shapes the policy and practice of schooling across much of the globalising world is unlikely to contribute to a transformation of the Anthropocene, due to the neoliberal economic and political imperatives that form its ideological roots. I then show that scholars across several disciplines call for a different approach to development and education in light of ongoing slow violence, and argue that Arendt's conceptions of politics and action are crucial to grounding new conceptual approaches to studying education in the Anthropocene era.

How do we 'fix' the environmental crisis at the heart of the Anthropocene? Although scholars have proposed different solutions to different aspects of this crisis—climate change,[21] biodiversity loss, the acidification of the oceans—there are areas of agreement.[22] Substantial changes in education systems underpin the theory of change of most proposed solutions, from curbing consumption (Ivanova et al., 2016; Wackernagel & Rees, 1998; Young, Hwang, McDonald, & Oates, 2010), replacing economic growth by de-growth (Joan Martinez Alier, 2009; Kallis, 2011; Schneider, Kallis, & Martinez-Alier, 2010)[23] and drastic population control (Dukes, 2011), to 'ecosystemic reflexivity' of institutions (Dryzek, 2016),[24] geoengineering (Crutzen & Stoermer, 2000; Vaughan & Lenton, 2011; Wigley, 2006), fostering 'circular economies' (Lieder & Rashid, 2016) and a 'fourth industrial revolution' aimed at creating more sustainable technologies (Schwab, 2016). All these ideas rely on changing the way we go about educating future generations. As Robert Stratford (2019, p. 149) put it, 'in the process of more carefully considering our interconnected natural, social and intellectual systems [in the Anthropocene], it seems likely that new approaches to education need to be part of this process'. The role of education is also reflected in perhaps the most mainstream response to planetary level challenges: the UN's Sustainable Development Goals (SDGs), which are based on the idea of sustainable development, a notion shaping much governmental, intergovernmental, philanthropic and for-profit development work around the globe (United

[21] For a discussion of the potential of education to aid specifically in addressing climate change see Bangay and Blum (2010).

[22] Some, however, only allow for technological solutions. For example, Denny (2017, pp. 131–137) lists four potential scenarios: (1) 'business as usual,' (2) 'love, peace and granola,' (3) 'the technofix' and (4) 'we're doomed.' Of these, he argues, only (3) has the potential to prevent some of the Anthropocene's gravest potential consequences.

[23] The degrowth literature, while not (yet) prominent in the development or education literature and confined to a small number of niche journals and a biannual International Degrowth Conference, has generated a number of economic, political and philosophical debates (Demmer & Hummel, 2017; Fournier, 2008; Latouche, 2010; Sekulova, Kallis, Rodríguez-Labajos, & Schneider, 2013; van den Bergh, 2007) that are likely to gain more attention as the Anthropocene becomes further established as an object of research.

[24] According to Dryzek (2016, p. 945), ecosystemic reflexivity 'differs from simple reflexivity in at least two ways…: the incorporation into human institutions of better ways to listen to ecological systems that have no voice; and an ability to re-think what core values, such as justice, mean in the context of an active and unstable Earth system'.

Nations, 2018). In this section, I present an interdisciplinary synthesis of the literature that challenges both concepts comprising sustainable development—the colonial ideological and material heritage of 'development', and some of the neoliberal sway over the idea of sustainability, as understood in mainstream policy and scholarship. I argue that the established notion of sustainable development is not only problematic but in fact oxymoronic, for the two concepts, as interpreted by many major international agencies, are at odds with one another (Redclift, 2005). I then put this literature in conversation with Arendt's theory of action in order to chart a possible path toward alternative understandings of development and sustainability.

Some of the most incisive scholarship about the theory and practice of international development points to its having an underlying logic that is similar to that of colonial 'civilising' practice (Easterly, 2006)—the polarisation of the world into more and less 'developed' regions and an effort to bring development into areas that are 'behind' on the linear trajectory to a singular model of modernity. This logic is reflected in the modernization theory of development, as articulated by W. W. Rostow in his 1960 treatise, *The Stages of Economic Growth,* which continues to shape development imagination and practice to this day (K. Gardner & Lewis, 2015, p. 19).[25] According to Rostow (1960), the process of development always follows a linear progression from a 'Traditional Society' toward the 'Age of High Mass Consumption'. To postcolonial scholars, this binary reasoning reflects what Edward Said (1979) termed Orientalism—an essentialising of non-Western societies by the West that is rooted in preconceived, patronizing notions of their backwardness. This view is related to the development critiques of 1990s post-development scholars (Escobar, 1995; Ferguson, 1994), who argued that development represented 'a Western cultural mind-set which imposed homogenising materialist values, idealised rational-scientific power and created unprecedented levels of environmental destruction' (David Lewis, 2012, p. 476).

[25] This is also consistent with my personal observations based on a previous career in development NGOs.

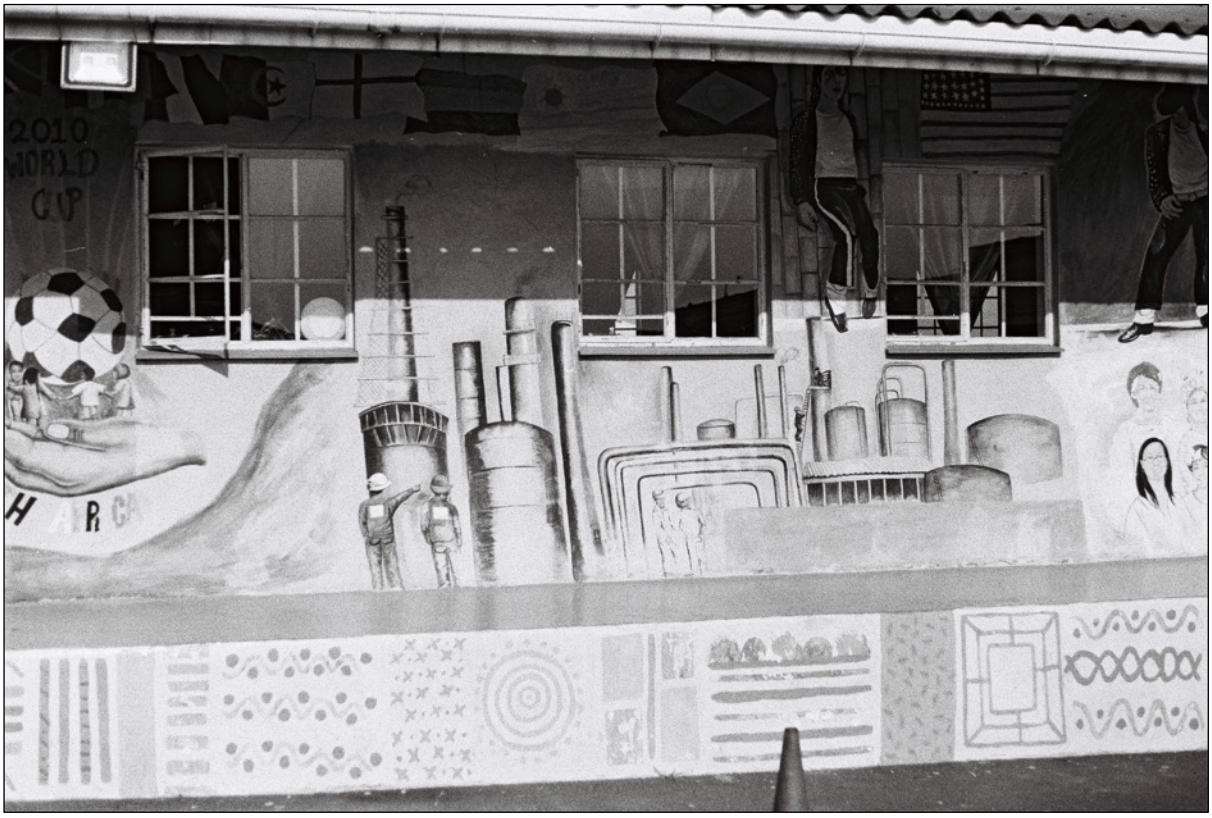

Figure 17: Drawings of industrial modernity outside a community centre in Wentworth

Since the publication of Rostow's *Stages of Economic Growth,* the dominant paradigms of international development have shifted to human development, human capital theory and capability theory (Robeyns, 2005). Education, health and civic rights have become integral to development discourse, as reflected in Amartya Sen's landmark work, *Development as Freedom* (1999). As a result, education in low-income areas of the world has become one of the key areas affected by the prevailing development ideology (Tabulawa, 2003).

The logics of Rostow's theory, however, continue to shape the development debate in spite of this shift (Kapoor, 2008), with underlying notions of universalism and Eurocentrism moulding neoliberal reform agendas (Brohman, 1995). Education reforms in the Global South are one area where this is visible. Such reforms are often not adopted by choice but instead represent a political and economic imperative for many of the countries in the Global South. As Steiner-Khamsi has argued, 'policy borrowing in poor countries is to the education sector what structural adjustment, poverty alleviation, and good governance are to the public sector

at large: a condition for receiving aid. As a requirement for receiving grants or loans at the programmatic level, policy borrowing in developing countries is coercive, and unidirectional' (2012, p. 5). This argument resonates with the substantive moral concerns expressed within postcolonial and critical development studies about the dynamics of power at play in development (Baaz, 2005; McEwan, 2009; R. C. Morris & Spivak, 2010), including the limited agency and lived concerns of those living in the Global South in shaping their policy landscapes (Mitchell, 1988; Wainwright, 2008).[26]

These points are reflective of broader criticisms of development ideology, including in the post-development literature (McGregor, 2009). As Mark Hobart pointed out in his introduction to *An Anthropological Critique of Development,* the dominant development paradigm often sees local culture and indigenous knowledge as obstacles to 'progress'. 'Claims to knowledge and the attribution of ignorance are central themes to development and remain seriously under-studied' (Hobart, 1993, p. 4). Given the dominance of economic thought in much of the scholarship about international development, it is not surprising that political and cultural factors do not always appear to have been given due consideration in the research and practice of development.[27] According to Stephens, 'it is the denial of culture—and, I would argue, the power of that culture and the corresponding hegemony of so-called "culture-free" economics—that has led to much of the failure of development projects during the past 30 years' (2007, p. 41). Consequently, 'problems of implementation [are] viewed as "barriers"

[26] In many cases, the lack of attention paid to local context can be traced to limitations on the range of policy tools that governments in the Global South can use under international agreements.[26] For example, Xavier Rambla has pointed to the case of implementing EFA in Brazil, where the international 'EFA program set the scope of the available policy instruments' (2014, p. 418). Often these imported policy instruments are *imagined* rather than *proven* to be universally effective. According to Steiner-Khamsi, policymakers sometimes construct an 'absent other' by resorting to 'an imagined world culture in education as if there exists an international agreement on how reforms in education are supposed to unfold. In other words, . . . globalization is for real, but the international community of experts agreeing on a common (international) model of education is imagined' (Steiner-Khamsi, 2004, p. 4). The argument being made here is that some of the logic underpinning many policy decisions about implementing education interventions in the Global South are rooted in the imagination of a well-performing Other—logics reminiscent of Said's conception of Orientalist binaries.

[27] With some notable exceptions (e.g., McCowan & Unterhalter, 2015).

rather than deeper, cultural forms of resistance to what is going on.' In their framework for cross-cultural education administration, Dimmock and Walker have argued that 'it is the transfer and mobility of theory, policy and practice [that] needs to be more "culture sensitive"' (1998, p. 37) or more culturally relevant. This literature makes a convincing case that development is far from a neutral project of human betterment (Cowen & Shenton, 2016; Escobar, 1999), which raises questions about the ways the history of 'civilising' the colonised Other continues to shape the way development practitioners and researchers think about the term (Dossa, 2007). For all its successes—including in reducing poverty (Asadullah & Savoia, 2018; Fosu, 2017)[28] and improving health outcomes (WHO, 2015)[29]—development often colonises economies and converts them to the religion of infinite growth without paying much attention to its distributional aspects (Stiglitz, 2013, 2015) and attendant environmental consequences.

The idea of sustainability is also far from being politically neutral. While earlier understandings of the concept reflected in religion and indigenous cultures emphasised the importance of living in harmony with nature and preserving the natural environment (Mebratu, 1998, p. 498), such understandings of sustainability would be considered radical by many of today's standards. The 1987 Brundtland Commission's report, 'Our Common Future,' defined sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (WCED, 1987) and called for a '5-10-fold increase in gross world industrial activity over the next century to meet the needs of the poor' (J. Robinson, 2004, p. 372). This definition, which departs from earlier

[28] According to UN statistics, 'In 1990, nearly half of the population in the developing world lived on less than $1.25 a day; that proportion dropped to 14 per cent in 2015. Globally, the number of people living in extreme poverty has declined by more than half, falling from 1.9 billion in 1990 to 836 million in 2015. Most progress has occurred since 2000 . . . The proportion of undernourished people in the developing regions has fallen by almost half since 1990, from 23.3 per cent in 1990-1992 to 12.9 per cent in 2014-2016' (United Nations, 2015a, p. 4)

[29] Between 1990 and 2015, child mortality has fallen by 53 per cent and maternal mortality by 43 per cent globally (WHO, 2015, p. 6); by 2014, the number of new HIV cases was 35 per cent below the 2000 rate and malaria incidence decreased by 37 per cent globally between 2000 and 2015 (p. 103).

ideas of environmental sustainability and calls for increased production rather than redistribution as a solution to inequality, continues to be influential well into the 21st century (Griggs et al., 2013; Sneddon, Howarth, & Norgaard, 2006).[30]

The current SDG framework defines sustainability as relying on three pillars—'economic growth, social inclusion and environmental protection' (United Nations, 2015b). Yet, a close reading of the SDGs points to the primacy of the economic over the environmental and the social in the accepted notion of sustainability. As Hannah Weber (2017a, p. 400) has argued, 'the implementation of highly contested neoliberal policies is itself part of the explicit goals of the SDG framework,' as reflected, for example, in SDG 10, whose targets are 'revealing about the centrality accorded to economic growth—rather than a commitment to redistribution—as the means to reducing inequality' (p. 404).[31] SDG 4, which concerns education, has been criticised along the same lines. According to Elena VanderDussen Toukan (2017, p. 296), 'the language of "quality education" and "lifelong learning opportunities" is left ambiguous in the SDGs, seemingly open to interpretation'. This is problematic, since, 'as standardized testing regimes are justified as the primary indicator for "quality" as defined by utilitarianism, measuring and ranking content proficiency belies any claim to curricular neutrality. Erosion of local systems, processes, possibilities—and education's role in it—continues today' (VanderDussen Toukan, 2017, p. 306). In other words, SDG 4 opens the door

[30] 'On balance, however, UN involvement in sustainability has suffered from many shortcomings and failures. The main issue is that many of the treaties, frameworks, and agreements . . . have been ineffectual and are often seen as a load of hot air. The Rio Summit was marked by bitter disagreements between the global North and the global South and between NGOs and governments. The documents produced in Rio were greatly watered down and reflected the disagreements of member states. The following UN summits in Johannesburg (2002) and Rio (2012) basically acknowledged the massive gap between where the UN would like the world to be and where it actually is' (Caradonna, 2014, p. 156).

[31] SDG 10.1 states: 'By 2030, *progressively achieve and sustain income growth of the bottom 40 per cent of the population* at a rate higher than the national average . . . SDG 10.2: By 2030, *empower and promote the social, economic and political inclusion of all*, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status' (H. Weber, 2017b, p. 404, emphasis added by Weber). 'In addition to the foregrounding of economic growth as the means to reducing inequality, we can again apprehend the commitment to "leave no one behind" in SDG 10.2. With regard to the latter, one could be forgiven for reading into it an element of compulsion, implied as part of this project of a neo-liberal variant of (hyper) capitalist approach to global development' (2017b, p. 404).

to (and offers a justification for) using education as a tool to maintain and reproduce a global economic (neoliberal) regime at the expense of the social and the environmental. As Smith (2005) points out, in the context of neoliberal 'sustainability',

> *the 'responsibilities' we are called on to exercise . . . involve little out of the ordinary—drive a few miles less, recycle plastic containers, compost organic waste, and so on. These 'acts' are, in fact, largely apolitical in an Arendtian sense . . . They usually do not initiate anything new, or offer any real possibility for the individual to change the world; rather they become a means for ameliorating some of modernity's excesses. (p. 58)*

Within the confines of 'apolitical' ESE—such as in my early fieldwork encounters with handprint in India and South Africa—these acts take place through an 'individualization of responsibility'. As Maniates (2001, p. 33) writes, 'when responsibility for environmental problems is individualized, there is little room to ponder institutions, the nature and exercise of political power, or ways of collectively changing the distribution of power and influence in society—to, in other words, "think institutionally"'. The transformative potential of education is subdued by the apolitical ESE that recognises only nonradical, individualised action as worth striving for, thus placing constraints on young people's imaginaries of both their present and future political agency.

In light of these arguments, it is hard not to see the idea of sustainable development, in its Brundtland-SDG variety, as an oxymoron (Caradonna, 2017). If the goal of development is to colonise national economies and equip them to pursue endless economic growth and sustainability is disconnected from social and intergenerational justice, then the natural environment (and the socio-cultural fabric of humanity) cannot be sustained.[32] This was made clear in the Club of Rome's 1972 seminal report, *The Limits to Growth* (Meadows, 1972), and in countless publications since (Gore, 2000; F. Hirsch, 1977; N. Klein, 2014; Meadows,

[32] As far as I am aware, the UN has not acknowledged that growth should ever reach a plateau or that negative growth might be necessary to maintain environmental sustainability.

Randers, & Meadows, 2006; Steffen, Crutzen, & McNeill, 2007; Steffen, Richardson, et al., 2015), including Foster's (2002) famous call to end the 'ecological tyranny of the bottom line'.[33] Current levels of consumption are unsustainable, suggesting that a net *de*growth of the global economy[34] is needed to bring the world closer to sustainability (in its older, 'radical' definition).[35] Bond and Hallowes (2002, p. 30) made the issue with sustainable development clear: 'Occasionally, . . . this strand of thinking does actually grapple with capitalism's ability to consume and accumulate beyond the limits of the biosphere. Yet the main point behind the sustainable development thesis is a technical and reformist one, namely that environmental externalities such as pollution should, in the classical example, be brought into the marketplace'. The advent of the 'human age' makes such logic harder and harder to sustain. As Bonneuil and Fressoz (2017, p. 20) argue, 'the concept of the Anthropocene challenges this separation [of growth and nature] and the promise to perpetuate our economic system by modifying it at the margin. In place of "environment", there is now the Earth system'. The oxymoronic nature of the accepted notion of sustainable development, and the underlying neoliberal dynamics it aims to covers up, are growing more discernible by the day.

According to this literature, what might an alternative look like? Much of the 'radical' writing on the environmental crisis calls for 'eco-socialism' (Angus, 2016; Barkdull & Harris, 2015) or a left turn in politics (Chomsky, 2016) as a solution. But the problem is not so trivial as to be fixed by simply replacing one economic system by another, as Shrivastava and Kothari (2012) aptly point out. Their argument is

[33] The Club of Rome, founded in 1968, is a membership organisation consisting mostly of scientists, academics and (former) politicians that is concerned with potential future challenges to humanity.
[34] This of course does not mean there will be no redistribution or reducing inequalities, so parts of the world grow while others degrow, but the net is to be degrowth if we want to survive.
[35] According to one view, the solution is 'to overturn the now deeply ingrained ideas of growth as a basic driving force in society, and replace them with those of quality standards as the main economic purpose'—that is, shifting away from the Anglo-Saxon model which emphasises competition through quantity of production and towards the Continental or Rhineland model which focuses on improvements in quality (Hengeveld, 2012, p. 303).

> *not just against market capitalism, in which TNCs (Trans-National Corporations) compete for political influence and economic dominance. We stand as much against state socialism, in which nation states compete for economic influence and political dominance. Under the competitive conditions of industrial modernity, the race towards a socialist utopia paves the way to ecological dystopia no less than the paradise dreamt up by enthusiastic neo-liberals. The ecological debris left behind by the carcass of Soviet communism after its official end in 1990 stands as a testimony to this. (Shrivastava & Kothari, 2012, p. 243)*[36]

Socialism is not the antidote for capitalism, at least when it comes to anthropocenic slow violence.

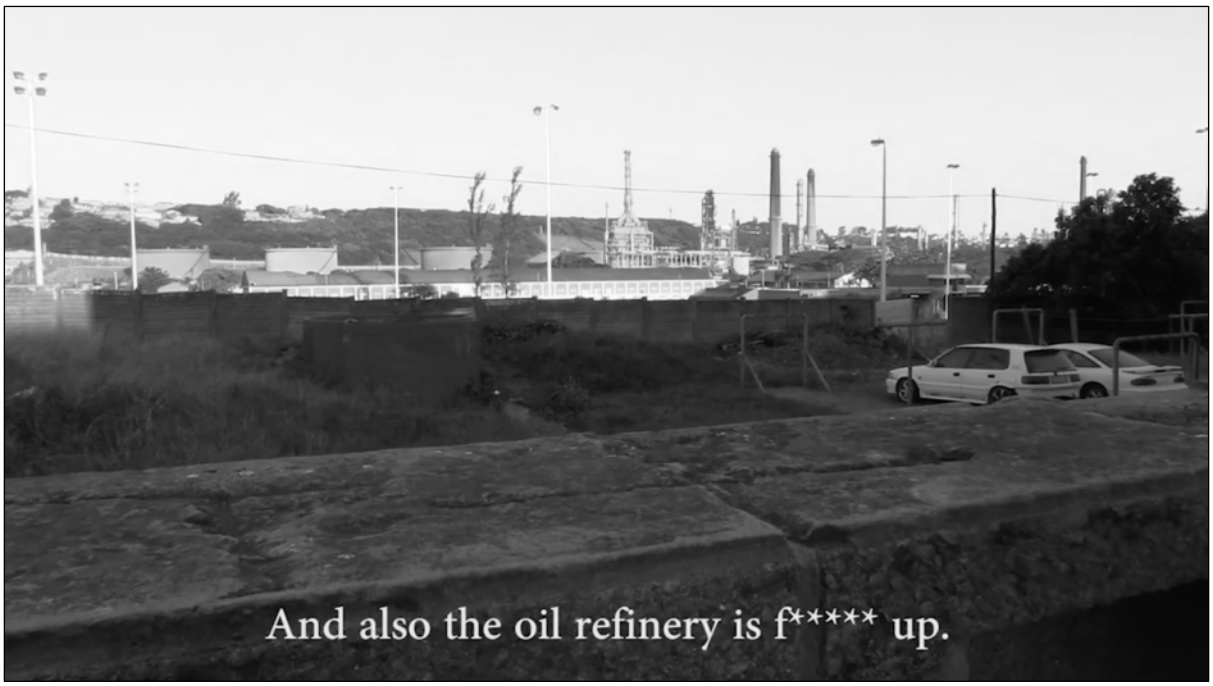

Figure 18: The youth's view of the oil refinery in Wentworth in 'Pollution Kills'

A clue to possible alternatives can be found in a recent empirical study whose findings suggest that individualism gets in the way of actions that might help to 'fix' the Anthropocene. Komatsu, Rappleye and Silova (2019) showed that 'individualistic' societies—that is, those where a belief in independent selfhood/autonomous competitive citizens is dominant, particularly Anglo-American countries—have a larger environmental footprint than less individualistic societies—those where a belief in interdependent selfhood prevails, such as

[36] The environmental destruction of the Soviet system is described in detail in Peterson (1993).

countries in Asia and Latin America.[37] The study also reported statistically significant findings confirming its sub-hypotheses: that people in more individualistic societies tend to believe less in human (anthropogenic) causes of environmental degradation, that this prevents people living in such societies from consciously organising pro-environmental behaviour, and that even among countries with similar levels of anthropogenic perception, the more individualistic ones have a larger environmental footprint 'due to less self-control when facing trade-offs between individual and social benefits' (Komatsu et al., 2019, p. 1). The study points to a potentially significant relationship between a society's cultural beliefs and practices and its environmental footprint. While Komatsu et al. (2019) did not prove a causal effect of culture, they suggested that in less individualistic countries a perception of interdependence between people might extend to a recognition of interdependence between humanity and the natural environment. In such countries, they also suggested, deliberation and dialogue might be fostered more than in more individualistic societies, potentially making it easier to identify and address environmental issues.

This is consistent with Bruno Latour's contention that 'the critic is not the one who lifts the rugs from under the feet of the naïve believers, but the one who offers the participants arenas in which to gather' (Latour, 2004, p. 246). Cultivating such arenas calls for 'an understanding of how the political becomes pedagogical, particularly in terms of how private issues are connected to larger social conditions and collective force—that is, how the very

[37] African countries were not included in the analysis, due to a lack of available data.

Figure 19: Strangers in a Pashulok street

processes of learning constitute the political mechanisms through which identities are shaped and desires mobilized' (Giroux, 2004, p. 62).[38] Arendt (1998, p. 188) asserts that it is in such spaces—and only in such spaces—that 'action' emerges: 'Action . . . is never possible in isolation; to be isolated is to be deprived of the capacity to act'. Put differently, action is only possible through the multiplicity of perspectives inherent in the shared human condition. Cultivating the capacity to act, whether through schooling, activism or other modalities of education, has the potential to help us reimagine (and transform) the Anthropocene.

2.3 Thinking with Ricœur and Arendt about educating for the Anthropocene

Education can help learners reimagine the world only if it cultivates their political imaginaries—that is, their ability to think collectively about possible futures and

[38] These quotes from Latour and Giroux were included in a May 2019 call for articles for a special issue on *Educational Philosophy and Theory* on the topic 'ESD in the "Capitalocene": Caught up in an impasse between Critique and Transformation'.

simultaneously envisage individual agency in bringing them into being. In this section, I develop a theoretical framework that helps us understand the social and cultural processes that enable or constrain such imaginaries by studying the political as it relates to the interface of education and the Anthropocene.[39]

The idea of the political, according to Arendt, is rooted in the plurality of subjectivities and an agonistic pluralism that allows these subjectivities to generate political action.[40] Bringing the political into ESE therefore means enabling pluralistic deliberation.[41] A concern with politics has long resonated with the work of scholars who have theorised the interface between education and sustainability. Stephen Stirling argued in 1996 that education for sustainability that is suited to 21st-century challenges must be 'ideologically aware and socially critical' (Stirling, 1996, p. 23). A decade later, Vare and Scott (2007) made a distinction between 'ESD (Education for Sustainable Development) 1', which promotes behavioural change among students, and 'ESD 2', which lies in 'building capacity to think critically about [and beyond] what experts say and to test sustainable development ideas, . . . exploring the contradictions inherent in sustainable living' (p. 194). According to these authors, the two approaches must be combined if ESD programmes are to be effective. They argue that a dominance of ESD 1 approaches has, in fact, undermined the sustainability agenda—a view echoed by Sund and Ohman (2014), who argue that 'unmasking the political dimension' (p. 639) of sustainability discourse is necessary for ESE to succeed. McKenzie (2012) goes further in her critique, pointing to the need to interrogate critically the influence of advanced

[39] This section contains the key ideas that bring together the three data chapters of this thesis (4 on the state, 5 on schooling and 6 on activism), but each chapter also contains further theoretical reflections and frameworks, often ones that I incorporated 'in search of theory' as the project progressed. There is a dialectic between the overarching theoretical model developed in this section and the ground theory that emerged from the research itself.

[40] As Brunkhorst (2000) points out, 'the outcome of the argumentative deliberation of such a plurality of agents is the full disclosure or illumination (in the Heideggerian/Greek sense of *aletheia*) of the matter in question' (p. 180). Consequently, Arendt's idea 'of political action as 'acting in concert' (derived from Edmund Burke) must be understood as including these contradictions and dissonances: it is a risky and never fully controllable *performance* within a context of intersubjective deliberation and judgment' (Brunkhorst, 2000, p. 181).

[41] This is a difficult task, one for which many existing education systems around the world are at best arguably underprepared, as is made apparent in Chapter 5.

neoliberalism on articulations of sustainability policy, including the SDGs and ESE. Recognising the diverse understandings of 'politics' in this literature, Håkansson, Östman and Van Poeck (2018) developed a typology of four different categories of what they call the political tendency in ESE—democratic participation, political reflection, political deliberation and political moment. While such a typology is helpful, the study does not advocate for a particular tendency and remains largely in the descriptive realm.

Several of these categories—political deliberation in particular—align with Arendt's definition of the political'. Levy and Zint (2013) suggest that the ESE field can learn from established research in political science and education in 'prepar[ing] students to participate in political processes to address major environmental problems' (p. 568), a notion that supports civic equality and which Arendt emphasises as a precondition for political action. Focusing less on participation and more on awareness, Räthzel and Uzzell (2009) argue for educating young people about the power structures underlying global production and consumption. This idea, too, would resonate with Arendt, who suggests that 'the more we think of the political realm as concerned with matters of subsistence and material reproduction, the more likely we are to accept hierarchy in place of civic equality' (Villa, 2000, p. 10). Another concern prevalent in this literature is the importance of conflict, disagreement and dissonance in educating learners about the paradoxes of sustainability (Lundegård & Wickman, 2007; Sund & Ohman, 2014)—a theme aligned with Arendt's emphasis on agonistic pluralism. This literature already recognises many aspects of the kind of politics that I argue is necessary for ESE to contribute to sustainability.

However, with a few exceptions (Andersson & Öhman, 2017; Öhman & Öhman, 2013; Van Poeck & Östman, 2017), these theoretical discussions have remained largely disconnected from methodological concerns about how to generate research that illuminates the interface of ESE and the political. Similarly, although scholars studying ESE are at the forefront of

promoting political participation as key to addressing sustainability challenges, 'few empirical studies have explored how to prepare youth for environmental political participation' (Levy & Zint, 2013, p. 568). There also are exceptions in this regard. Lundegård and Wickman (2012), for example, have analysed democratic deliberation in classroom dialogue in the context of ESE; Van Poeck, Goeminne and Vandenabeele (2016) have examined the conflicting values of different educational approaches in the context of nature excursions, behaviour modification workshops and documentary filmmaking. These studies, however, do not offer empirically grounded theoretical frameworks for understanding the politics of ESE interventions, nor do they engage the realities of postcolonial societies.[42]

A recent study by Van Poeck and Östman (2017) engaged the empirical and proposed a framework called Political Move Analysis, which aimed to identify politicising and depoliticising actions (moves) by educators in the context of ESE. While such an empirically grounded theory may address some of the concerns raised by scholars calling for a greater focus on politics in ESE research, the binary nature of this framework oversimplifies the different political forces at play in education. What Poeck and Östman call depoliticising moves are not necessarily an expression of anti-politics; rather, they may be a manifestation of a different kind of politics, the understanding of which requires a thick description (Geertz, 1973) of the cultural, historical and social forces shaping the political. I return to this point in the next chapter, where I argue for the value of ethnography in studying the politics of ESE in postcolonial societies.

In the following pages, I propose one path toward a more nuanced and grounded analysis of politics in ESE and the methodological implications of such an approach. I specifically aim to demonstrate the importance to ESE research of phenomenological analysis that is rooted in concepts of historical responsibility, action and the postcolonial condition. The

[42] Elements of postcolonial reflections can be found in the work of Pashby and Andreotti (2016).

Figure 20: Religious rituals performed by adults on the riverbanks, captured by children in 'Ganga'

idea of sustainability, with a focus on future and past generations at its core, calls for action that emerges out of a multitude of temporalities—not merely with our contemporaries but with those whom we might never know. It is this intergenerational plurality that has the potential to politicise ESE. At the root of the reorganisation of the political by the intergenerational is the idea of historical responsibility, and this is where I turn next.

While many different definitions of historical responsibility have been proposed (Tillmanns, 2009), a particularly helpful way to think about this concept in the context of ESE is to engage Paul Ricœur's (1984) notion of debt. We can conceptualise an environmental footprint in the form of a 'debt to the dead' to be carried by future generations. Ricœur first articulated his theory of debt in *Time and Narrative* in the context of describing the process of writing history: 'Historian's constructions have the ambition of being reconstructions, more or less fitting with what one day was "real." Everything takes place as though historians knew themselves to be bound by a debt to people from earlier times, to the dead' (p. 100). To the extent that all people are historians engaged in the task of interpreting past events, all are also bound by the recognition that we carry a debt to the dead or to people from the past we may

never have known. Following this logic, we can conceptualise environmental degradation, caused by the pursuit of modernity at the expense of future generations, as a form of debt to the not-yet-born—a debt impossible to repay.

The theme of historicity, which lies at the root of ESE, links it to our imaginary of the future. The 'surplus of meaning', a core concept in Ricœur's hermeneutics, is key to the logic behind ESE interventions: by becoming aware of the historical causes of environmental degradation, we simultaneously become aware of the likely effects our actions will have on the future environment—our debt to those we will never know. ESE may therefore be seen as relying upon a 'temporal arc' that links the past with the future through the present: 'The temporal arc of our lives is such that the past (as collected in the present) throws a deep shadow over our future, and so the primarily retrospective (or recollective) character of narrating does not prevent it from having [a] prospective, indeed truly self-transformative, effect' (Dunne, 2007, p. 152). This idea of the 'storied self' (Dunne, 2007) is especially applicable to ESE interventions: 'Given the radically unsustainable nature of our current systems, environmentalism is first and foremost a critical endeavour. In criticizing an unsustainable status quo, environmentalists are engaged in imagining an alternative, even when they do not fully elaborate the proposed alternative' (Treanor, 2013, p. 161).

Global aspirations for development and modernity also carry burdens of history, but they must be conceptualized in different ways. Traces of colonial encounters and their legacies, as they shape education practice, often have meant that such aspirations are uneven and unpredictable, particularly among populations subjected to slow violence. The sacrifices previous generations made to achieve better living standards, particularly in the context of the (neo)colonial histories of many communities in the Global South, act as a burden on those now alive and may not easily translate into the practical application of often utopian perspectives on ESE. The incompleteness of the development narrative, the belief that 'we are still

developing', seeks to render the present the latest stage in the struggle for development—a struggle whose temporal dimension is greater than individual lives, in which not participating means being seen to betray the moral and political obligation of honouring the dead. To understand the ways ESE interventions shape the perception of sustainable development among young people, it is first necessary to understand how such interventions interact with existing notions of historical responsibility that have been shaped by the cultural, political and economic landscapes in the target communities.[43] What 'horizons of the possible' do young learners see for themselves and how do ESE interventions change these perceptions?

Neither debt—the debt of environmental degradation to the unborn or the debt to the dead of continuing the struggle for development—can be fully paid off. Ricœur (1984) addresses this 'insolvency paradox' relative to historians, whose constructions 'aim at being *re*constructions of the past. Through documents and their critical examination of documents, historians are subject to what once was. They owe a debt to the past, a debt of recognition to the dead, that makes them insolvent debtors' (p. 142). Yet, as Ernst Gerhardt (2004) noted in his analysis of *Time and Narrative,* Ricœur 'does not consider insolvency a function of a structural impossibility as doing so would negate any ethical force the debt might possess' (p. 246). Not being able to *fully* repay the debt thus does not mean one lacks the ability to imagine oneself as a capable, willing subject; indeed, it means that the process of reconstructing narratives of empowerment is a lifelong project. Importantly, Ricœur (2010) does assume that

[43] These landscapes are complex and multi-layered. ESE programs rely on a number of socially constructed concepts, including 'progress', 'development' and 'sustainability'. The complex dynamics at play in ESE interventions lend themselves to a multi-layered cultural analysis that incorporates historical contextualisation, including existing factors that shape perceptions of 'sustainability' and 'development' in different contexts. Such an analysis should also consider issues of political economy, including power dynamics within communities that influence how well ESE concepts and interventions are received, and associated questions concerning the links between educational and economic development. Finally, it should examine overarching narratives of 'progress' as well as any resistance to them in the local contexts, such as nationalist narratives and development imagination fuelled by the forces of cultural and economic globalisation. These concepts are thought to interact in complex ways with local cultures, thereby creating fertile ground for exploration of the interface between ethical imperatives and diverse cultural systems and political configurations.

we are capable of such acts of reconstruction and ought to be empowered to assert our capability.

Examining the concepts of environmental sustainability and the related concept of development through Ricœur's lens allows us to explore such questions as, 'To what extent do young people envision their environmental footprint as a "burden of history" to be carried by future generations?' 'How does ESE alter their perception of their personal and historical responsibility vis-à-vis the environment, as well as their obligation to reimagine the future, the dead or the unborn?' These questions link phenomenology with ethics in examining how students see the exteriority of their lives—their impact on imagined others—and the extent to which the production of subjectivities in ESE classrooms is influenced by 'positive' projections into the future that are rooted in cultural learning about the past.

The debt to the unborn of sustainability and debt to the dead of material progress are not necessarily at odds with each another. The very concept of sustainable development at the heart of ESE assumes that the two debts are in tune; pursuing development does not need to come at the expense of future generations. However, the particular definition of sustainable development operationalised by the SDGs is oxymoronic, as we have seen, and pits the debts against one another. It arguably would be difficult not to see advancing the contemporary dominant paradigm of infinite growth and neoliberal development schemes that are fossil-fuel dependent as congruent with the debt to the unborn in most, if not all, societies. Promoting this paradigm as a sustainable form of human 'progress' or failing to challenge its fundamentally unsustainable nature while engaging in the individualisation of sustainability is where ESE can become a form of greenwashing.

To avoid falling into this trap, it is important to ask *whose* historical burden young learners are to carry. Are those living in societies whose dead (and living) made disproportionate contributions to environmental degradation expected to carry a greater share

of the debt than those in areas with considerably shorter histories of industrialisation? To what extent do ESE interventions either clarify or obstruct learners' moral vision?

To answer these questions, we need to consider not only the pedagogies and contents of ESE but also the power structures that legitimate them. In the context of subaltern communities, so prevalent in the Global South, Spivak's (2010) question, *Can the Subaltern Speak?* is key. In assessing whether or not the ethical obligation of the debt of environmental degradation is imagined to be spread evenly amongst all without regard for the histories of inequality, colonialism and exploitation, it is necessary to ask *who* does the imagining. How much agency do subaltern groups have in defining the notions of sustainability and development they are expected to follow? Whose development is being promoted? Are subaltern voices essentialised in this process of cultural translation? These questions are linked to the ideology of the state in which subaltern communities are located; I explore this through the framework of Mignolo's (2011) concepts of dewesternization, rewesternization and decoloniality, which are defined and discussed in Chapter 4.

A theory of agency that examines the material practices and (post)colonial power dynamics at the root of these questions should recognise culture as a dynamic flow shaped by forces of globalisation. A key idea in this conception of culture is imagination, defined by Appadurai (1996) as 'a constructed landscape of collective aspirations, . . . a negotiation between [local] sites of agency . . . and globally defined fields of possibility' (p. 31). Imagination is not rooted in unidirectional relationships of dominance and subjugation; rather, the imagination of different agents responds to the shared impulses associated with globalisation and their manifestations in national and local contexts. These impulses tend to emerge as intersubjective understandings—that is, as shared but also acquired through collective and contested interaction and discussion. They form what Appadurai calls ideoscapes, or cultural flows 'composed of elements of the Enlightenment worldview, which

consist of concatenations of ideas, terms and images, including '"freedom", "welfare", "rights", "sovereignty", "representation" and the master-term "democracy"' (Appadurai, 1990, p. 299). To these we might add environment and sustainability,[44] the latter of which can be seen as a historical invention emerging through the very idea of growth and development (Warde, 2018), with particular narratives of sustainability furthered through education. By using this lens, it is possible to see the contested nature of the conceptions of development and sustainability. This recognition allows us to examine the role intersubjectivity plays in any social transformations initiated within ESE by understanding the ways education allows for dialogue in the process of defining key concepts in and out of the classroom.[45]

The bridge between phenomenology and ethics afforded by applying Ricœur's concepts of the debt to the dead and the temporal arc to the study of ESE is built over a complex terrain of power relations shaped by (post)colonial histories and the present-day political economy of development. It is a bridge that seeks to connect intersubjective interpretations of history to imaginaries of ethical futures in relation to ESE. To build this bridge requires us to construct systems of understanding between the researcher and the researched and to allow the research site to become a place of knowledge production rather than merely a data source

[44] Writing in 1990, Appadurai was two years early for the 1992 Rio de Janeiro 'Earth Summit', officially known as the United Nations Conference on Environment and Development. While the summit has been widely seen as a seminal event that brought the environmental agenda to the mainstream of international politics and law (Cicin-Sain & Knecht, 1993; Freestone, 1994), it also has received criticism for its perceived ineffectiveness in advancing the environmental agenda (G. Palmer, 1992; Rowland, 1992). Maniates (2001, p. 44), for example, argues that the summit 'cultivate[d] a power-obscuring language of "all of us need to work together to solve global problems"'.

[45] The presence of any such dialogue, however, does not automatically mean that power does not subsume culture or that the forces of global politics do not act to reconfigure the local politics of communities where ESE takes place. In the postcolonial context of much of the Global South, power has, for centuries, restricted individual agency in replicating 'undesirable' elements of culture (Fanon, 2004; Nandy, 2015; Said, 1979). It is therefore imperative to examine the power structures that regulate the cultural processes of ESE. The concept of 'governmentality' (Foucault, 2010)—social organisation characterised by the subjugation of agents to the governing body—is helpful in developing a theory of power when introducing ESE interventions in different contexts. Ferguson and Gupta (2005) have argued for a notion of 'transnational governmentality', defined as 'the outsourcing of the functions of the state to NGOs and other ostensibly non-state agencies' which brings into question 'the taken-for-granted spatial and scalar frames of sovereign states' (pp. 115-116). Such a framework enables us to ask questions about the power structures involved in attempts to 'import' different forms of ESE, as well as their historical functions in these sites.

(Connell, 2007). What is required is a depth of understanding and an opportunity to coproduce knowledge with study participants that comes with the researcher's high degree of embeddedness in the communities studied.[46] This can be achieved through the tools of anthropology, chiefly the method of ethnography which, 'at its best, provides a powerful . . . way to read historical conditions' (Fortun, 2012, p. 451).[47] Ethnography—which has not been used extensively in the context of ESE research—needs to be given greater prominence in the field if we are to come to grips with the (de)politicisation of ESE (Sutoris, 2019). Another bridge is needed, one between ESE and anthropology. Through this project, I hope to chart out the possible shape of such a bridge, starting with a multi-layered form of ethnographic methodology that I describe in detail in the next chapter.

[46] This was particularly my goal in the filmmaking workshops with children in Pashulok and Wentworth. Some of the other elements of my methodology did not necessarily incorporate the idea of coproduction.

[47] The theoretical underpinnings are designed to lend support to an approach to studying ESE that reads 'beneath' the data in order to extract its underlying symbolic dimensions through interpretation. The conceptual apparatus may also be substantially challenged or reconfigured by the findings of the work, as all ethnography carries with it an iterative and dialectical function which speaks to earlier conceptualizations as part of recasting and gaining an ethnographic picture of the context.

Chapter 3.

Multi-Sited Ethnography and Depoliticization of Education and Sustainability

Cultural analysis is intrinsically incomplete. And, worse than that, the more deeply it goes the less complete it is.

Clifford Geertz (1973, p. 29)

The refinery's smokestacks covered the horizon in front of us as Aruna, my key informant and the teacher in charge of environmental education at Durban South Primary, was leading the way toward what seemed like an inferno. She stopped just behind the school's parking lot on a small plot of land from which it was possible to see the dilapidated houses, piles of trash and church spires of Wentworth, and the vista of industrial carnage surrounding it. As it was only my second day at the school, I was still acquainting myself with the place and could not decide if the air smelled more like petrol or rotten food. 'This is our permaculture garden,' Aruna said proudly, as she turned to me and gestured toward the fence, indicating the garden's considerable size (Fig. 21). This was the pinnacle of environmental education at the school and I thought to myself, what could I study here?

Remembering this episode of my fieldwork as I write this chapter, I see much ethnographic value in it for the kinds of questions it raises: What does 'environment' and 'environmental education' mean in Wentworth? What are the barriers constraining the liminal spaces these words refer to? Who put up and who maintains these barriers, and are they at all permeable? But as I wandered through the garden, I could not conceptualise any of these questions, for I was preoccupied with looking for environmental education programmes and evidence of their impact. Once I abandoned the idea of studying the handprint, I realised that my project was not about interventions but about ideoscapes, ideologies, subjectivities,

Figure 21: The view from the school's permaculture garden, as captured in 'Pollution Kills'

attitudes, temporality, politics, history and culture. (De)politicisation of ESE became the new subject, but what exactly does it mean to study this? In a sense, the project became a form of grounded theory of the very concept of education as it relates to the Anthropocene in spaces of accelerated time.[1]

But where and how does one go about developing such a grounded theory? The lucky accident of handprint as my entry point into the field provided the 'where'.[2] Ethnography was the 'how'. I did not set out to study activism and schooling; these two main foci emerged through fieldwork. I had no hypotheses to test and no research questions that could not be reframed. Trying to understand better how education contributed to the destructiveness of the Anthropocene and how it might need to be redefined to help humanity prevent further damage

[1] By 'spaces of accelerated time', I mean parts of the world that are already experiencing the impacts of anthropocenic slow violence first-hand. In some ways, such places are 'living in the future', as I argued in more detail in Chapter 1.

[2] As explained in the first dilemma preceding Chapter 1, the focus of my research changed substantially after I completed my pilot study. 'Handprint' is an approach to ESE that I originally aimed to study, but through an ethnographic encounter with this concept, I came to recognise the significance of researching the (de)politicising effects of ESE more broadly.

to the natural and social environment was my only guiding principle.[3] It was clear to me from the outset that such a task called for a methodology that combined depth with flexibility, one that enabled the field to speak through study participants' narratives (as well as my own), but one that simultaneously facilitated a dialogue between these narratives, existing research and different bodies of social theory. I also knew that my project needed to access young people's perspectives and knowledges in order to give them an opportunity to be part of the conversation. Ethnography in the tradition of multi-sited, critical, collaborative coproduction of knowledge with the study participants, seemed to be the only method that could stand up to this challenge.[4]

In this chapter, I outline how I went about answering, and refining, my research questions. Starting with a discussion of the power of ethnography to illuminate 'blurry subjects' and 'hard problems' (of which, I argue, education's relationship to the Anthropocene is a prime example), I explore the idea of 'locating' the field as well as locating myself within the field, and outline the specific methods I used to study my sites and their wider context. I move forward with a brief examination of the method of participatory observational filmmaking within the context of a multi-sited ethnography, a key methodological innovation of my project, and conclude with a section about data analysis.[5]

[3] Of course, I followed other methodological principles, such as openness to the field, intellectual curiosity and a commitment to research ethics, but with respect to defining my research subject, this was the key principle that, for part of my research, effectively served in lieu of research questions.

[4] This project is positioned on the continuum between sociological and cultural ethnography: while conducting an ethnography of the (de)politicisation of ESE, it considers the interactions of interventions with existing cultural landscapes across multiple sites in the tradition of 'radical empiricism' (Conquergood, 1991, p. 189).

[5] A discussion of three 'dilemmas' can be found in separate sections of this thesis—the first one about the choice of subject and 'being true to the field', the second one related to issues of representation, and the third about ethnographic authority and integrity. These issues are therefore not dealt with extensively in this chapter. Methodological remarks and details about specific methods that might help the reader better contextualise particular findings are embedded in the ethnographic narrative of all chapters and also are not repeated here. The research instruments are included in Appendices B-C, F-H, K-L and ethics protocols for informed consent in Appendices D-E, J.

3.1 Illuminating blurry subjects: Multi-sited ethnography of activism and schooling in the Anthropocene

Figure 22: The view from the Rishikesh cafe

On February 8, 2017, six days into my fieldwork in Pashulok and sitting in a café (Fig. 22) overlooking the Ganges, I sent a somewhat distressed email to my supervisor:

> *The school is not really teaching environmental education at the moment, as it turns out. The board exams are coming up for them, they have finished the curriculum and are now just revising for exams . . . There are mixed signals about how much environmental education is being taught right now, but I think it's safe to say that if any, it's minimal, . . . [which] leaves me with my 1-hour-a-day video workshop with 6 kids, community interviews, parent/teacher interviews, and possibly some focus groups with students . . . Overall the school seems more comfortable with me doing stuff on top of what they are doing rather than observing what they are doing, so it seems that a more 'interventionist' approach would sit better with them.*

This short passage reflects a number of assumptions I held at the beginning of my fieldwork—equating education to schooling and teaching/learning to school subjects, the idea that I would be an 'observer' rather than an 'interventionist', and seeing the participatory filmmaking workshop as playing second fiddle to the primary method of classroom observation. During the course of my fieldwork, I experienced a lot of friction (cf. Tsing, 2005) between these ideas and the socio-cultural realities of my research sites, and in this section I address each of these assumptions in turn, pointing out how they became complicated by the ethnographic encounters, shocks of recognition and social dislocations I experienced during my fieldwork.

The first assumption harkened back to the original design of my study which revolved around the idea of an ESD 'intervention'—a clearly defined, easily identifiable subject, a trope frequently invoked in development and policy literature. But as Lewis and Mosse (2006) have argued, ethnography 'is not constrained to privilege authorized (instrumental) interpretations, [yet] it can throw light on areas of development practice that are hidden or silenced by policy, but that are critical to understanding how events actually unfold in particular settings and why interventions do or do not work' (p. 15). And just as under the ethnographic gaze handprint turned from a 'solid' intervention to a much more 'fluid' metaphor for underlying trends in the depoliticization of ESE, so did 'education' become a much broader (if fuzzier) subject that came to encompass spaces of activism as my research progressed. This happened partly thanks to the multi-sited design of my study.

When a subject is 'mobile and multiply situated' (Marcus, 1995, p. 102), as is the case with the (de)politicisation of ESE,[6] it is best illuminated through a multi-sited cross-national

[6] Both theoretical and empirical arguments support the thesis that (de)politicisation of ESE is 'mobile and multiply situated'. Theoretical arguments might point to the globalisation of education governance, curricula and pedagogy that is symptomatic of the current transnational regime of neoliberal capitalism (cf. Au & Ferrare, 2015; Harvey, 2007; Robertson & Dale, 2015). Empirical support for this notion can be found in the data from my pilot study, snippets of which are presented in the opening of this thesis. This data suggests that India, South Africa and a range of other countries have been adopting ESE policies underpinned by (de)politicising and individualising logics in recent years.

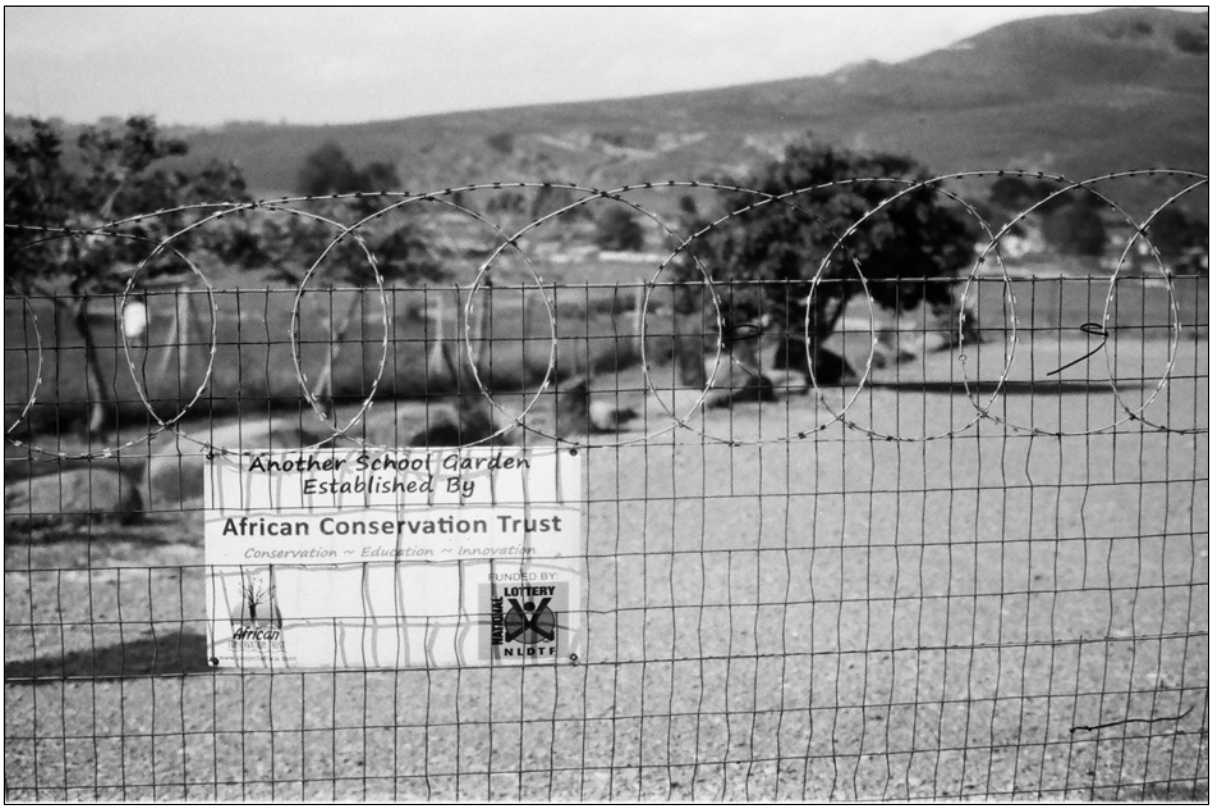

Figure 23: Barbed wire and a school garden in a South African township

research design.[7] Multi-sited ethnography enables an examination of subtle continuities and ruptures within the cultural and political flows of ESE, and it is also capable of offering a more complex account of the processes underpinning its (de)politicisation.[8] 'The key question is perhaps: What among locally probed subjects is iconic with or parallel to the identifiably similar or same phenomenon within the idioms and terms of another related or "worlds apart" site?' (Marcus, 1995, p. 111). Answering this question, Marcus argues, 'involves the work of comparative translation and tracing among sites' that he sees as 'basic to the methodology of

[7] To understand the need for a multi-sited ethnographic approach, it is useful to consider the field as a social construct and an imagined community with contested landscapes of social and cultural convergence and divergence. As Nadal and Maeder have argued, 'the field of sociological ethnography cannot be found somewhere out there, but is constructed by the researcher' as the project focuses on studying a sociological concept (the depoliticisation of ESE) and thus the 'locus of study is not the object of study' (Nadai & Maeder, 2005, p. 4).

[8] Indeed, while a multi-sited ethnography might lead to 'experiencing a broader but possible "shallower" world, . . . understanding the shallow may itself be a form of depth' (Falzon, 2009, p. 9). This point also responds to the charge of privileging breadth at the cost of depth sometimes levelled against multi-sited ethnographies (Hage, 2005).

multi-sited ethnography' (Marcus, 1995, p. 111).[9] Put differently, the (de)politicisation of ESE cannot be assessed *prima facie* but needs, rather, to be understood in the context of processes of cultural, economic and political translation.[10] What I found myself studying in Pashulok and Wentworth was not an intervention but a blurry subject. The goal of the ethnography was to trace its contours—a task that involved a constant negotiation of complexity. This was a transnational study that sought to bridge very different spaces and very different generations of people in an effort to capture imagined Anthropocene futures from multiple vantage points.

3.1.1 Locating the field, locating myself

The second assumption—that I would be an observer rather than an interventionist in this research project—proved to be similarly complicated by the ethnographic encounters during the course of my fieldwork. The assumption is an understandable one. After all, as Rabinow (1977) has noted, despite being a 'participant', the ethnographer always remains first and foremost an observer with a degree of critical distance from the subject of study, a concept known as distanciation in phenomenology. 'Observation . . . is the governing term in the [participant-observation] pair, since it situates the anthropologist's activities. However much one moves in the direction of participation, it is always the case that one is still both an outsider and an observer' (Rabinow, 1977, p. 79).

But this does not mean that ethnography does not engage with ethics. Seen through the lens of Ricœur's critical phenomenology, ethnography does not lead to the appropriation of alien experiences (Ricœur, 1981); rather, it interprets these experiences, 'and for Ricœur, an

[9] Despite its many advantages, a critical multi-sited ethnography is not without challenges. One potential pitfall is the danger of cultural essentialism—reaching simplistic conclusions that attribute the success or failure of interventions to the more or less 'suitable' cultures. The focus on the fluid nature of culture (as well as different actors in the field), however, helps to prevent such over-simplified conclusions, since this lens is more concerned with the changes taking place in response to external impulses than with cultural fixities of any given locality.
[10] In one sense, it is the translation that is under investigation; however, ethnographic approaches mean that many other levels and layers of data collection and analysis are possible.

interpretation is authentic only if it makes its own what was initially alien' (Josephides, 2008, p. 178). Studying the (de)politicisation of ESE through this framework makes it possible to critically examine its effects on the agency of individuals on the ground, the configurations of power that shape this agency and, indeed, the extent to which ESE can be seen as an agent of liberation from oppression (Freire, 2003).[11] However, to tap into ethnography's double potential—to be able to observe and interpret through the detour of distanciation while simultaneously engaging the ethics of the (de)politicisation of ESE—I needed to recognise that I was as much a participant as I was an observer. Many of my research methods, as detailed in the sections that follow, relied on using elicitation devices and the participants' ability to contribute to the research design of this project, neither of which could take place unless I actively shaped rather than merely observed reality.[12]

Once I understood this, it became clear that ethnography has the potential to get beyond binary understandings of educational practice as politicising/depoliticising. It can instead illuminate what 'the political' might mean in diverse sites and challenge existing and often 'Global North-centric' notions of what constitutes political action. The different 'modes of ethnographic authority'—the experiential, interpretive, dialogical and polyphonic (Clifford, 1983, p. 142)—make it possible to engage deeply with multiple actors whose agencies shape (and are shaped by) ESE interventions. Indeed, ethnography allows the incorporation of multiple 'authorial voices'—including learners, activists, community members, teachers, administrators and parents in both sites—on ideas like sustainability in constructing what Van Maanen (2011) has called 'jointly told tales' (p. 136).

Crucially, ethnographic reflexivity allows researchers to recognise the limitations of their own authority in creating a representation of the cultural and political text of ESE. I came

[11] For a brief discussion of the application of Freire's ideas to ESE, see Gadotti (2009).
[12] Perhaps the most significant example of this is the participative observational filmmaking workshop. The very act of setting up the workshop—creating a novel space within each of the schools I studied—constitutes an 'intervention'.

across outlier teachers who took their learners to demonstrations and rallies, and I met learners who drew on sources well beyond their schools in imagining alternative futures. The patterns of neoliberal agendas, greenwashing and education systems unprepared for the task of ESE that I saw in the beginning appeared less insurmountable after I had immersed myself in the field. Ultimately, my research challenged not only my working definition of politics but also of education, making me realise that ESE goes well beyond schooling and into informal spaces of community exchange, activism and faith (cf. Ellingson, 2016). It also made me realise that we need to get to know 'the political' intimately in any given cultural context before we can embrace cultivating 'politics' through ESE.

3.1.2 Accessing young people's knowledge: Participatory observational filmmaking

The final assumption was that participatory observational filmmaking—an 'experimental' visual method that was included in my original research design—would be less fruitful than classroom observation.[13] But the reality proved to be very different. Seema Primary decided to restrict my classroom access, as the subject of environmental studies was not taught at the time and the school did not wish this to become known, and the filmmaking workshop was to become my main fieldwork activity, and possibly my main source of data.[14]

The filmmaking workshop model I used was derived from the work of David MacDougall.[15] His work with children in educational settings—which led to his acclaimed *Childhood and Modernity* films—took place, among other locations, in the Doon School in Dehra Dun in the state of Uttarakhand, only several hundred kilometres from my research site

[13] I use the word 'experimental' because, as far as I am aware, the observational filmmaking workshop had not been previously used in the context of a larger ethnographic study as one of the methods helping to answer the study's research questions. In its previous uses, the format was aiming to capture knowledge possessed by young people about any subject, whereas in my project it aimed to elicit (and generate) knowledge about particular subjects and themes (such as 'the environment').

[14] This dynamic is discussed further in Chapter 5.

[15] MacDougall has argued for a concept he calls the social aesthetic (2006, p. 108), which can be defined in the context of education as 'the way in which the institutional environment of the school texture[s] the children's lives' (Potts, 2015, p. 198).

Figure 24: Camera equipment waiting to be picked up by children in Pashulok

in Pashulok.[16] The fundamental idea behind this work is that children[17] have knowledge that can neither be mediated by an adult researcher nor expressed verbally.[18]

Reflecting on his *Childhood and Modernity* films in an interview, MacDougall noted that one of the greatest challenges he had to overcome during the project was that the underperforming government schools where he worked did not 'favour independent thinking or imaginative thinking . . . it was often rote learning' (Potts, 2015, p. 199), which made it difficult to encourage young people to take the initiative and express their own ideas rather than trying to meet instructor's expectations. My own research context presented similar challenges. I opted to utilise the power of participatory video not merely to capture students'

[16] This project was built on the premise that 'the work of these young people might offer a significant mediation of, and alternative perspective on, current transformations taking place in India' (Potts, 2015, p. 192).
[17] In his workshops in India, MacDougall focused on the age group of 10- to 13-year-olds, the upper end of which corresponds to the age of the students I worked with in Pashulok and Wentworth.
[18] The very title of MacDougall's book, *The Corporeal Image* (2006), reflects his belief that, in the process of participatory video making, the camera becomes an embodied tool that provides unique access to the experience of children.

Figure 25: Student and research assistant acting out a scene for a videography exercise

views but also as a pedagogical intervention designed to help students express ideas despite their school's focus on rote learning. Indeed, participatory video has the power to bring learners into the study as coresearchers rather than as the researched, and it therefore not only helped disrupt the lopsided power dynamics that often trouble ethnographic research but also advanced the goal of this project to contribute to the participants' empowerment in the tradition of critical ethnography.

In the workshops I conducted in Pashulok and Wentworth, I emulated many elements of MacDougall's approach, including the format—sessions designed to familiarise learners with the equipment, followed by a group brainstorming of ideas for short videos, and the eventual filming, editing[19] and exhibition of films. While MacDougall's workshops typically included eight sessions for equipment training, the number was almost double in my case

[19] We used a MacBook Pro portable computer, a Lacie Rugged external harddrive, and Final Cut Pro for editing the films.

Figure 26: Student crew filming in Wentworth

(approximately 15), partly because my sessions were shorter (typically 50 minutes each), partly because I had the luxury of working with the students every school day[20] and partly because of student absenteeism and dropping out.[21] Five students in India completed the workshop (down from seven who started), six in South Africa (also down from seven). In Pashulok, the children chose to work collectively on a single (but more ambitious) project, while in Wentworth the group decided to split in two and work on two different films; a total of three films were produced during the workshops (Table 1).

[20] In both Pashulok and Wentworth, I also held Saturday sessions in some weeks, particularly toward the end of the process when the time-consuming task of video editing needed to be completed.

[21] One student in Pashulok dropped out due to his parents' concern about his academic performance in the upcoming exams; two students in Pashulok appeared to lack the motivation and their attendance was sporadic until they decided to stop coming. In Wentworth, one student from Umlazi had to withdraw due to the difficulty of arranging transport home after the workshop sessions.

Table 1: Films produced in observational filmmaking workshops in Pashulok and Wentworth

Site	Film title	Subject	Length
Pashulok	'Ganga—The Life-Giver'	Activity on riverbanks from morning to evening, water pollution, religious rituals	13:07
Wentworth	'Pollution Kills'	Air pollution, disease, activism	15:04
	'Wentworth Changes to Progress'	Individuals and groups working to improve the local community	10:19

The workshop largely followed the syllabus developed by MacDougall (Appendix J), with the students taking on progressively more complex tasks, starting from framing a simple static shot and moving toward sequences that included camera movements. In keeping with the guiding philosophy of MacDougall's work, we used professional-grade camera equipment supplied by Cambridge University,[22] and the students learned how to use it in 'manual' mode.[23] This meant that they had to make conscious decisions about setting up each shot—such as framing, focus, focal length, white balance, type of microphone(s) used, sound levels—which compelled them to think carefully about the subject of each frame. In contrast, had the children used small portable cameras or cameras in phones, this would have encouraged much less careful and intentional filming. Mastering professional-grade equipment became also a source of confidence and pride to the children, a transferable skill that might become valuable later in life; access to the equipment also conveyed that the students could be trusted with and responsible for the gear—all of which contributed to the students' morale and the groups' motivation to complete a highly complex task.

[22] See Appendix K for the list of equipment the students worked with.
[23] A 'manual' mode limits the camera's built-in automatic features and requires the user to instead make their own decisions about a number of parameters. Using the manual mode requires considerably more experience and understanding, not only of the camera's individual features but also of key concepts in videography, including focus, focal length, white balance, sound levels and others.

Figure 27: The team of 'Pollution Kills' about to leave Durban South to film in the community

The workshops had a number of distinctive features that departed from MacDougall's model. I intended to use these distinctions to leverage the cinematic medium's potential for a politics of representation capable of bringing young people's perspectives on the environment into the larger conversation. Whereas learners in MacDougall's classes were given free rein as to the choice of their subjects,[24] I gave my students a prompt (Appendix I).[25] This prompt was designed to be very broad but specific enough to ensure that the work produced might be relevant to my research questions.[26] The second difference was that, unlike MacDougall, who

[24] In an email of February 27, 2017, MacDougall wrote to me: 'My approach with this sort of thing has always been . . . what? Socratic, perhaps. Whatever guidance I give tends to be in the form of questions. If the child has a topic in mind, I ask them to think about what exactly they could shoot. How could they expand on it? What are the core issues? If there's a problem in making it clear, how could they solve it? In other words, get them to do the thinking. That's about all the advice I can offer'. Forwarding his message to my supervisor, I added: 'This raises an interesting question. Do "Socratic" approaches work in places with rigid power structures and authoritarian tendencies in the education system? In other words, how scalable is MacDougall's methodology'?

[25] Such a prompt is also referred to as a 'challenge' by Nigel Meager, who first introduced me to this method. Meager is a recent graduate of the education faculty at Cambridge University, was trained by MacDougall in Australia and has worked with and published extensively (Meager, 2017b, 2017a, 2018, 2019) on the subject of observational filmmaking with children in the context of education research.

[26] As the workshops progressed, however, my working definition of the environment kept widening, and I found it was unnecessary to limit the scope of what the children chose to do (except for reasons of safety and feasibility). This was especially pronounced in Wentworth, where issues of crime and safety were seen as 'environmental'

edited the films his students filmed, for the most part I left the editing[27] in the students' hands,[28] as I believed this was key to ensuring that their films more fully reflected their perspectives. As MacDougall (2011, p. 108) points out, 'through the style of camerawork and editing, the [captured] images are reprocessed to produce an explicitly interpretive work'. The editing process provided many opportunities for conversation and reflection on the process of interpretation the students (and I) were engaging in. A kind of collective audio-visual hermeneutics of environmental hope and despair emerged organically in the workshop sessions.

David, his partner and film co-director Judith MacDougall and I discussed this latter point at length when I had a chance to visit them at their Canberra apartment during a conference a few months after completing my fieldwork. I kept in regular touch with David while in the field, as he generously answered my many questions, shared his exercise sheets and informed consent forms, and curiously anticipated how my workshops would turn out. As

concerns by the children (I explore this further in Chapter 4.) As I proceeded with my larger ethnographic project and became more immersed in the local communities, the children came to see me as someone concerned with environmental issues (specifically resettlement in Pashulok and air pollution in Wentworth) and therefore tried to ensure, without any encouragement from me, to make films that reflected on these. In fact, the children sometimes went, from my perspective, too far in this direction, assuming there was a 'right' answer to the subject I sought. This was especially true in India, where I believe it was due to the habit of memorizing 'right' answers (as opposed to forming an independent opinion) encouraged by the school system in general, and the teachers at Seema Primary in particular.

[27] I taught the children the basics of editing using the Final Cut Pro software package and let them do some of the editing on my laptop. At times, the children would sit with me and direct me in arranging and trimming shots. I let them make the decisions about ordering and cutting footage, and sometimes suggested minor changes that mostly had to do with technical aspects of the footage, such as removing parts of shots where the camera was too shaky or taking out some of the background noise in sound clips. At the very end, I went through the edit and tidied it up (standardising sound volumes, adjusting contrast and brightness in some of the shots, adding the credits from handwritten notes provided by the children, etc.) and showed the final edit to the children for their final approval.

[28] This was partly due to the age difference (the children I worked with were older than most of the children MacDougall worked with at the Doon School and at his other sites in India), and partly due to my having more time with the children in our daily sessions, which enabled me to spend significant time with them on editing. In his work, Nigel Meager also taught the children to edit, and his success in doing so inspired me to pursue a similar strategy in my work.

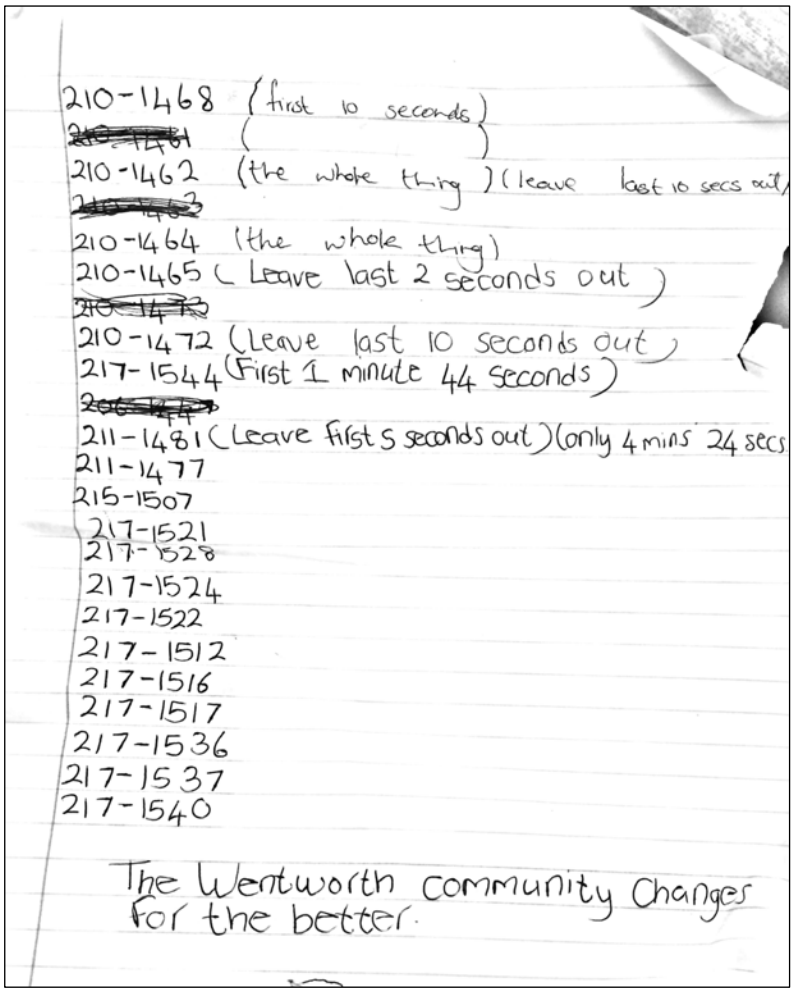

Figure 28: A 'paper edit' of one of the student films in Wentworth[29]

the three of us sat in a room adorned with African masks, family photographs and coffee-table film and photography books, I told David that I was not exactly sure how I would use the films in my thesis.[30] As the conversation progressed, we all agreed that, while all the three films turned out very well in their own right,[31] what was of even more value to my project were the conversations I had with the learners, the ways not only the final product but the process itself

[29] This is a sheet put together by the students in assembling a rough cut of the film. The numbers refer to individual clips stored on memory cards the students used. At this stage, the goal was to choose which clips to include in the film and decide on the order. Once this was completed, the students would consider trimming the clips and would then usually return to thinking about the order of clips once again. Much like arriving at my research questions, the process of editing the film was an iterative one.

[30] Some of David's and Judith's most noted works were shot in 1970s Africa, including David's feature debut *To Live with Herds* (1972) and their *Turkana Conversations* trilogy about semi-nomadic camel herders living in northwestern Kenya. Much of the MacDougalls' subsequent work focused on indigenous communities in Australia. It was only much later in David's career that he started working on film workshops with children, although his earlier ethnographic film work, I believe, had an influence on this work.

[31] We agreed that the films could be considered for submission to children's and youth film festivals, but ethical considerations would make this difficult, as consent would be required not only from the children who made the films but also from some of the other participants who appeared in individual scenes.

elicited their perspectives on a wide range of issues affecting their environment and their community, even the ways in which they juxtaposed their experience of schooling with the process of making a film.[32] The workshop provided a space that allowed me to gain the learners' trust, a space in which our shared humanity allowed us to bridge at least some of the gaps between us (language, age, status). And while I was initially unsure of how much value the films themselves would add to the larger project, they proved vital to grounding the narrative of this thesis and highlighted a number of key insights about the practice of schooling and activism, intergenerational knowledge transfer and agonistic pluralism from the perspective of young people. Indeed, this work confirms MacDougall's thesis that participatory observational filmmaking has the potential to elicit and transmit knowledge that young people possess—such as their culturally grounded dystopian and utopian narratives of the future of the environment—which is difficult for adults to understand through words alone.

Back in the Rishikesh café, I brought the email to my supervisor which contained a long list of fieldwork challenges to an end, and signed off with 'Sorry this is so messy'! While at the time the 'messiness' felt like an obstacle, in hindsight the challenges were not obstacles but opportunities to refine my assumptions and research questions in response to the realities of my field sites.

[32] While the children spoke of the workshop in favourable terms in comparison to their experience of schooling, this might be at least partly due to response bias and the sheer novelty of filmmaking. I do not make any claims about whether or not the process enriched the children's lives, although I sought to make the experience rewarding in keeping with my commitment to avoid the trap of 'extractive research' in my project.

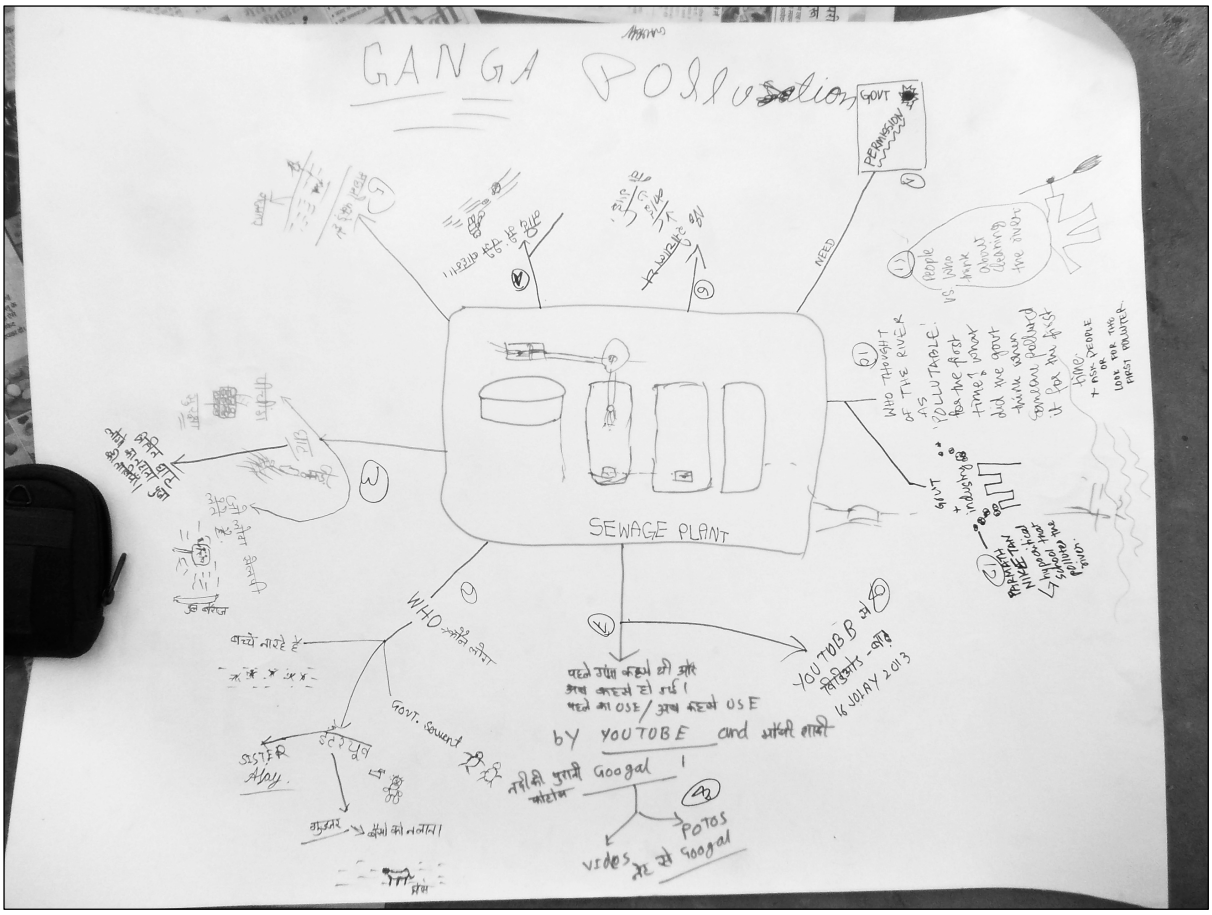

Figure 29: A group mind-map made in an effort to come up with a film subject in Pashulok[33]

3.2 Phases of fieldwork and levels of analysis

Aside from its messiness, the personal and the subjective in ethnography were key to my methodological approach and inspired by the work of Ruth Behar (1996)—an ethnographer who weaves her interlocutors' stories into personal meta-narratives that are simultaneously up close and panoramic. Nazaruk (2012, p. 158) observes that Behar's 'literary strategies challenge representation in ethnographic writing. They question the core of values of conventional science, calling for the legitimacy of experimentation with the personalized values of sensual touch between self and Other'. This approach called for becoming enmeshed

[33] The children made mind maps such as this one in an effort to come up with their own subjects rather than looking for the 'right' answer. This particular mind map was made by three students who were interested in filming inside a local sewage treatment plant—a place that was off-limits to them and which they hoped to explore with a camera. As they brainstormed further, they widened the subject and came up with the idea of filming what happens on the banks of the Ganges from morning till evening, which became the concept of the final film they made.

in my field sites, which in turn called for an extended engagement with the study participants.[34] My fieldwork therefore took place in three phases: the pilot study, main fieldwork and follow-up visits (Table 2). The first phase—which focused on scalability and handprint, as outlined in Dilemma One—was designed with methodological rigour in mind and conducted using a range of instruments for structured observation, semi-structured interviews, focus groups, student assignments[35] and personal reflection.[36] This was my entry into the field, and it soon became apparent that, rather than these structured instruments, openness to new themes and directions of inquiry was the most powerful form of 'rigour' I could bring into this project.

Table 2: The dates of fieldwork phases

Location/Phase	**Pilot study**	**Main fieldwork**	**Follow-up visit**	**Other**[37]
South Africa	12.3.-30.3.2016	22.3.-4.7.2017	30.1.-20.2.2018	N/A
India	30.3.-16.4.2016	21.1.-21.3.2017	9.9.-6.10.2017	15.-22.9.2016
France	N/A	N/A	N/A	4.-8.12.2016
Total	*267 days (approximately 9 months)*			

Openness meant jettisoning many of my original research questions, coming up with new questions, often in response to events unfolding in the field, and correspondingly replacing my arsenal of instruments[38] with open-ended thematic conceptual guides or signposts that

[34] Nazaruk's (2012, p. 159) definition of 'enmeshment' is helpful in understanding what such a process entails: 'Becoming enmeshed in culture signifies being part of a complex process of self-projection into alterity, reception in this place and all the interactions that build bridges of associative instincts, feelings, actions. Being enmeshed means the pull and push between people, as they react and co-write a narrative of self- portrayal, irrespective of who the writer is'. See also Rosaldo's (2018) *Grief and a Headhunter's Rage* for a case for subjectivity in ethnography.

[35] These included the 'temporal arc' exercise (in which children drew imagined worlds 100 years ago and 100 years into the future) and mind-mapping exercises that, with some modifications, made their way into the methodology I used after shifting my focus from handprint to the (de)politicisation of ESE.

[36] Apart from an ethnographic diary, I also used 'reflection sheets' which helped me track themes and dilemmas throughout my research. I continued to do this after the change of subject, albeit in a less structured way.

[37] The purpose of these trips is explained in Section 3.2.3 'The "other" fieldwork'.

[38] Despite the changes, several important elements of my original research design remained with me throughout the entire project. An ethnographic diary (Appendix H), participatory observational filmmaking (I-N), the temporal arc exercise (O), and mind-mapping of concepts, places and people students connected to the word 'environment' (P) proved to be useful techniques as part of the multi-sited critical ethnography of schooling and activism as it related to the Anthropocene.

served as the organising principles of my research.[39] Table 2 showcases a selection of my original instruments and protocols developed to study of the scalability of handprint, some of which are included in Appendices B-C. As seen in the table, by the time I returned to India and South Africa for my main fieldwork, many of these blended into a 'Schooling and activism thematic guide' (Appendix Q)—the two key themes that emerged out of the pilot study. Similarly, these themes evolved into the 'Education and the Anthropocene thematic guide' (Appendix R), which informed interviews and focus groups during the final stage of follow-up visits.[40]

A key element of my methodology that I retained throughout my fieldwork was a conceptual division of methods into four categories reflecting the realm of inquiry at which they operate: the local, the historical, the national and the global (cf. Dillabough & Kennelly, 2010).[41] Table 3 includes a categorisation of individual methods by the realms they help illuminate, and I address these clusters of methods in detail in the following two sections.

[39] Such a shift required an open-ended methodology. This was built into my research methodology from the beginning. For example, in understanding the design and implementation of handprint, I relied on ethnographic network analysis—'a mapping of the form and content of policy relations' (Ball, 2012, p. 5) which could lead in unexpected directions. However, it was only with time that I came to recognise open-endedness as a key strength of my methodology.

[40] In this phase, I also utilised '(half-)cooked' snippets of data that I shared with research participants in order to give them an opportunity to respond to my interpretations of their realities.

[41] Within the multi-sited ethnographic research design, the local, historical and national realms can be seen as reflections of the global dimension of (de)politicisation of ESE. To the extent that ethnography is 'a theory of description' (Nader, 2011, p. 211), multi-sited ethnography of scalability can be thought of as grounded theory for a cultural and political analysis of scalability. Such a theory is rooted in 'chains, paths, threads, conjunctions, or juxtapositions of locations in which the ethnographer establishes some form of literal, physical presence, with an explicit, posited logic of association or connection among sites that in fact defines the argument of the ethnography' (Marcus, 1995, p. 105).

Table 3: Mapping of specific methods, instruments/thematic guides and ethics protocols onto realms and phases

Phase	Methods	Subjects	Instruments & Thematic Guides	Ethics Protocols	Realm			
					Global	National	Local	Historical
I. Pilot study	Ethnographic network analysis			Permission to conduct school-based research (E), Individual informed consent for adults (F) and minors (G)	•	•	•	•
	Policy analysis (implementation organisations' internal documents)				•	•		
	Handprint classroom observation	Teachers, students	Sample observation schedule (B)				•	
	Handprint individual interviews Oral history	Teachers, academics, implementation staff	Sample interview instrument (C)		•	•	•	•
II. Main fieldwork	Critical multi-sited ethnography		Ethnographic diary (H)	Permission to conduct school-based research (E)	•	•	•	•
	Participatory observational filmmaking	Students	Film prompts (I), film syllabus (J)	Filmmaking informed consent (L, M)			•	•
	'Temporal arc' exercise & FG	Students	Temporal arc (O)	Individual informed consent for adults (F) and minors (G)			•	•
	Mind-mapping exercise & FG	Students	Mind-mapping (P)				•	
	Classroom observation (South Africa only)	Teachers, students	School and activism thematic guide (Q)				•	
	Oral history	Community, parents, activists					•	•
	Focus groups	Teachers				•	•	
	Semi-structured and unstructured interviews	Students, teachers, parents, activists, academics			•	•	•	•
III. Follow-up	Follow-up interviews	Students, teachers	Education and the Anthropocene thematic guide (R)		•	•	•	•
	Follow-up FG	Students, teachers, activists			•	•	•	•

3.2.1 The local

My approach to interactions with interlocutors at the local level revolved around Ricœur's dictum that 'learning to narrate oneself is also learning how to narrate oneself in other ways' (Ricœur, quoted in O'Dwyer, 2009, p. 6). Just as my informants kept reinventing themselves through the stories they shared, I saw that learning to narrate the field also meant learning to narrate the field in other ways. A range of methods helped me in this process. Aside from participatory observational filmmaking (discussed in section 3.1.2), the main techniques I used during my main fieldwork consisted of observation, including limited classroom observation in South Africa;[42] semi-structured and unstructured interviews with students, teachers, parents, community members and activists; teacher focus groups; and visual methods used in focus groups with students, including mind mapping and the 'temporal arc' exercise (Appendix O).

Most of my observation took place outside the classroom walls, and what I was able to observe partly depended on the length of my immersion in each site. For example, a story I narrate in the opening of Chapter 5—in which a Wentworth teacher and I set forth into Wentworth at night to retrieve an expensive piece of filmmaking equipment from the home of a student who had an abusive father—afforded me the opportunity to get to know Wentworth very differently from my everyday encounters in which I was often separated from the residents by a metal fence or a car windshield.[43] Such opportunities were only possible after spending

[42] As I explain in detail in Chapter 5, I was not allowed to observe classes in India, as the administration (and individual teachers) felt self-conscious about the way in which the subject of environmental studies was handled at the school. Observations was allowed in South Africa, and I participated in approximately a dozen lesson observations. These involved different classes and teachers, since the South African curriculum does not contain a subject dedicated to ESE, and as a result many of these observations were of limited use to my project, although a number of classes dealt with relevant themes and were illuminating.

[43] According to local colleagues, it was not advisable for me to walk on foot or use public transport while conducting research in Wentworth. I used a rental car throughout my fieldwork, and much of my time outside the car was spent in school campus, which was separated from the rest of the community by a metal fence.

several months in the field.[44] A fieldnote I wrote in my ethnographic diary toward the end of my time in Wentworth exemplifies these sentiments and encounters:

> *Luke [a student in the filmmaking workshop] mentions he did not come yesterday because he was followed by a 'slowly driving car with tinted windows' in the morning, and ran back home, where he hid under a blanket and watched TV all day after fearing he would 'never see his mother again' (fear of kidnapping).*

As I was writing this, I had a distinct sense that Luke was not lying, because I had heard many such stories and because my relationship with the children in the workshop by this point was such that they trusted me enough to share their fears. The old ethnographic dictum of 'depth equals time times effort (or luck)' certainly seemed true.[45]

My interviews started off semi-structured and gradually moved into unstructured mode. It was as if over time I had developed a database of questions, concepts and hypotheses in my mind that I presented to my informants, variously playing the role of a naïve foreigner, an interested social scientist, a witness to suffering and trauma and a devil's advocate offering alternative perspectives as elicitation devices.[46] Interviews were rarely less than half an hour, usually more than an hour and sometimes over two hours in length. All those conducted in South Africa took place in English, as did approximately one-third in India, with the other two-thirds conducted through translators.[47] Many were recorded, transcribed and, if needed,

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[44] This is because it took me time to build relationships with people at the school and in the community who could accompany me outside the gates of the school without this seeming unsafe.

[45] Few ethnographers would disagree that the length of immersion in the field is a crucial factor in attaining ethnographic depth. But time itself is insufficient and a focused effort is imperative. At the same time, neither time nor effort can guarantee ethnographic depth, for an element of luck is involved in the research process. Luck is not necessarily arbitrary, however. Throughout my fieldwork, I was reminded of the observation frequently attributed to Mark Twain that 'The harder I work, the luckier I get'.

[46] As part of this technique, I would sometimes expose an interlocutor to a perspective I learned of from another informant to see what kind of a response it would elicit. For example, when talking to activists in Pashulok about the resettlement of oustees, I sometimes mentioned claims made by representatives of the Tehri Hydropower Development Corporation, which operates the dam, to learn how activists might go about disproving government claims of adequate compensation. I always made sure to do this at the end of an interview in case the participant assumed the perspective aligned with my agenda and they would try to adhere to it (a form of response bias), or if sharing the perspective had an alienating effect (I tried to avoid this latter scenario by very clearly stating that the perspective was not mine and I was only stating it to learn how the interlocutor might respond to it).

[47] I worked with several translators. One was also a key informant, which raised methodological and ethical challenges described in detail in Dilemma Two. Others were local translators recommended by researchers who

translated;[48] in total I recorded 61 interviews in India and 46 in South Africa (see Table 3 for a full count). The locations ranged from a classroom, a tailor shop and a fast food restaurant to a riverbank (Fig. 30), a spot in the shade under a tree or an ashram.[49] The respondents[50] ranged from 9 years old to over 90 years old,[51] and the majority were men in India and women in South Africa.[52] While these 'formal' recorded interviews proved to be an essential source of data, given that I was able to access recordings and transcripts at the analysis stage and did not need to rely on memory and fieldnotes, countless informal conversations with various interlocutors in the field were just as crucial in helping me reach greater ethnographic depths.

had previously worked in the area. One was a friend from Delhi who agreed to do a few days of translation for me pro bono. All the others were paid at mutually agreed rates. Some of the participants spoke in Garhwali (or used Garhwali expressions) rather than in Hindi, but this posed minimal difficulties, as the translators were almost always able to deal with this.

[48] All the interviews conducted in Hindi were transcribed and translated by an independent translator who verified all of the simultaneous translation that took place during the interview.

[49] I tried to conduct interviews in locations chosen by the interlocutors themselves, although in some cases this was not feasible, due to considerations such as background noise which interfered with recording. In such cases I suggested quieter alternatives.

[50] I got introduced to respondents organically. Often, during an interview or an informal conversation, an interlocutor would suggest someone else they thought I should speak to, and I often pursued such leads. I also asked for suggestions for participants who held different views in order to try to capture as many perspectives on a given issue as possible. My sampling strategy could be described as a combination of snowball sampling and deviant sampling (Pelto, 2013).

[51] These figures are estimates, as some respondents could not remember their exact age.

[52] This was partly because, in India, I interviewed more activists (who were predominantly male) than teachers, and in South Africa more teachers (who were almost all female) than activists.

Figure 30: A translator talking to a student on the bank of the Ganges, on the edge of Pashulok

Table 4: The numbers of interview and focus group transcripts for each research phase[53]

Phase	Site	Respondents	Interviews	Focus Groups
I. Pilot	**India**	CEE staff	10	0
		Academics	2	0
	South Africa	Rhodes University[54]	6	0
		WESSA	3	0
	France	UNESCO staff	2	0
II. Main fieldwork	**Pashulok (India)**	Activists (local)	10	0
		Other community members	4	0
		Students	7	0[55]
		Teachers	2	0
		NGO staff	1[56]	0
		Academics	1	0
	India	Activists (national)	5	0
	Wentworth (South Africa)	Activists	11	0
		Other community members	1	0
		Students	7	13[57]
		Teachers	15	1
		Academics	1	0
		Journalists	1	0
III. Follow-up	**Pashulok (India)**	Students	5	5
		Parents	3	0
		Teachers	3	1
		Other community members	1	0
	Jeevan Shala (India)	Teachers	5	0
		Community members	0	1
		Activists / school administrators	2	0
	Wentworth (South Africa)[58]	Activists (SDCEA)	0	1
		Students	0	2
		Teachers	0	1
		School administration	0	1
	South Africa	Activists (national)	1	0
		Total	**109**	**26**

[53] This table reflects the number of transcribed interviews rather than the number of interviews I conducted. I did not keep track of the number of the latter, as many non-transcribed interviews were simply informal conversations with interlocutors, of which there were many. Information, insights and reflections from such interactions would often find their ways into my ethnographic diary.

[54] These interviews with the academic staff at the Environmental Learning Research Centre at Rhodes University in Grahamstown were focused both on handprint (since the Centre was involved in bringing handprint to South Africa through its collaboration with CEE in India) and the landscape of ESE research, policy and practice in South Africa more generally.

[55] Numerous focus groups with students took place, but these were not recorded and transcribed. Instead, I worked with translators who helped me conduct the focus groups in Hindi and I took detailed notes. This was because I sought to make the children more comfortable in expressing their opinions in a school setting, which was in many cases not what they were used to, as discussed in Chapter 5.

[56] This was an NGO worker from a CEE partner organization in Uttarakhand who participated in implementing handprint activities here within the Paryavaran Mitra ('Friend of the Environment') programme.

Figure 31: An example of a past imagined by a student in Pashulok (Shikha)

Focus groups with students and teachers helped me understand both the divergences and convergences between individual viewpoints, and they also enabled me to include voices that otherwise might not be heard. To help elicit 'thick' responses from interlocutors, I used several visual techniques within the focus groups. In a temporal arc exercise, students drew imagined past and future worlds, and we then talked about their drawings, the differences and similarities between past and future and different students' imaginaries, and used these as a springboard for talking about intergenerational knowledge transfer, environmental justice and historical responsibility. A few examples—which are for illustrative purposes only; additional

[57] Two of these focus groups were conducted at another school in the area that granted me access. The data from these focus groups helped me contextualise my findings from Durban South. Unfortunately, such a 'comparison' school was not accessible in Pashulok.

[58] A number of interviews and informal interactions from my follow-up fieldwork in Wentworth were not transcribed. Chronologically, this was the last part of my fieldwork, and by this point I felt more comfortable relying on my own notes than on transcripts. I also felt this helped the interlocutors be more candid.

images are included and analysed in Chapters 4 and 6—can be seen in Figures 25-28, drawn by Shikha, Abhishek, Lucy and Bello, respectively, all of them 12 years old. I also relied on mind-mapping, particularly of the associations young people held with the word 'environment', and community spatial mapping, where students would draw a map of the area surrounding their school and/or home and colour portions of it to highlight perceived environmental risks.[59] All three techniques were illuminating, but the temporal arc exercise generated the thickest data.[60] Yet another method was oral history, which is detailed in the next section, as it helped me understand not only the local but the historical realm.

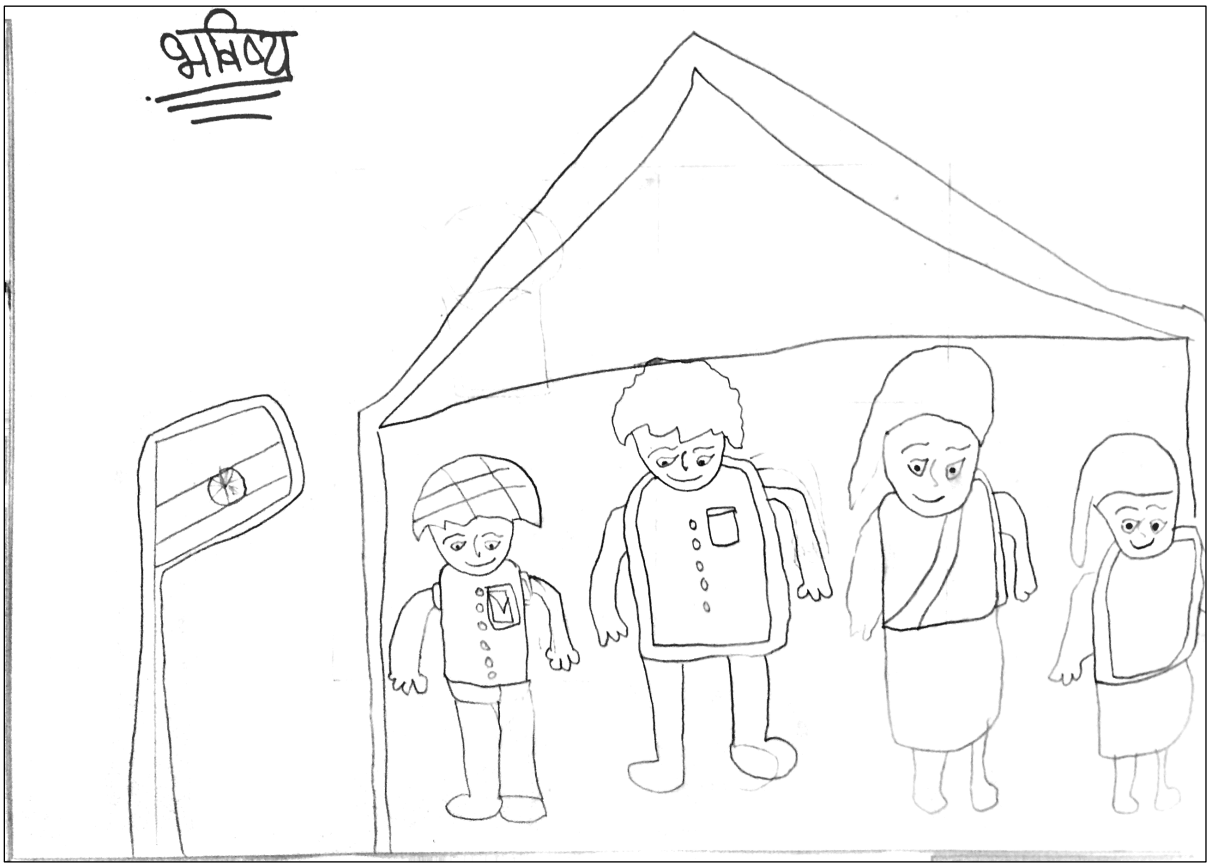


Figure 32: An imagined future in Tehri (Abhishek)

[59] While this exercise led to some interesting conversations with the children, the other visual exercises were generally more successful at eliciting more detailed, thick responses. Due to the lack of space I therefore did not include these community maps in the thesis.

[60] The exercise combined visual expression with question prompts, using the children's own drawings as elicitation devices to start conversations. This combination was effective in both sites.

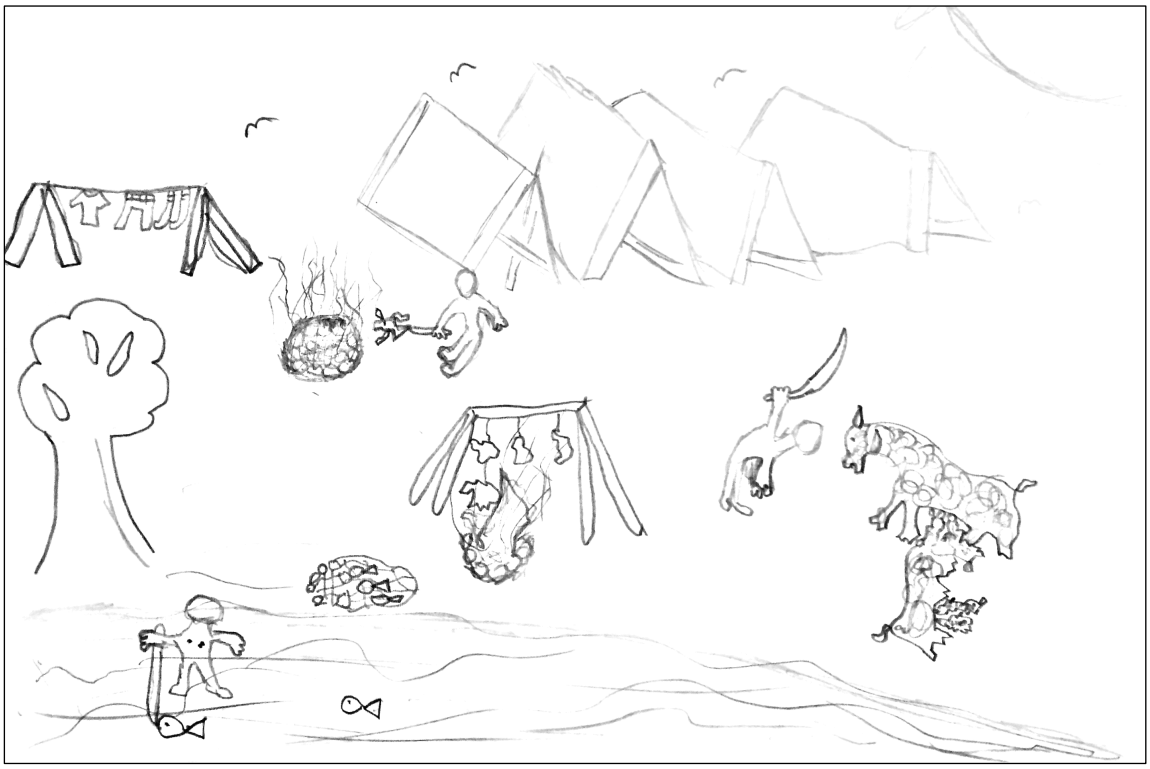


Figure 33: An imagined past in Wentworth (Lucy)

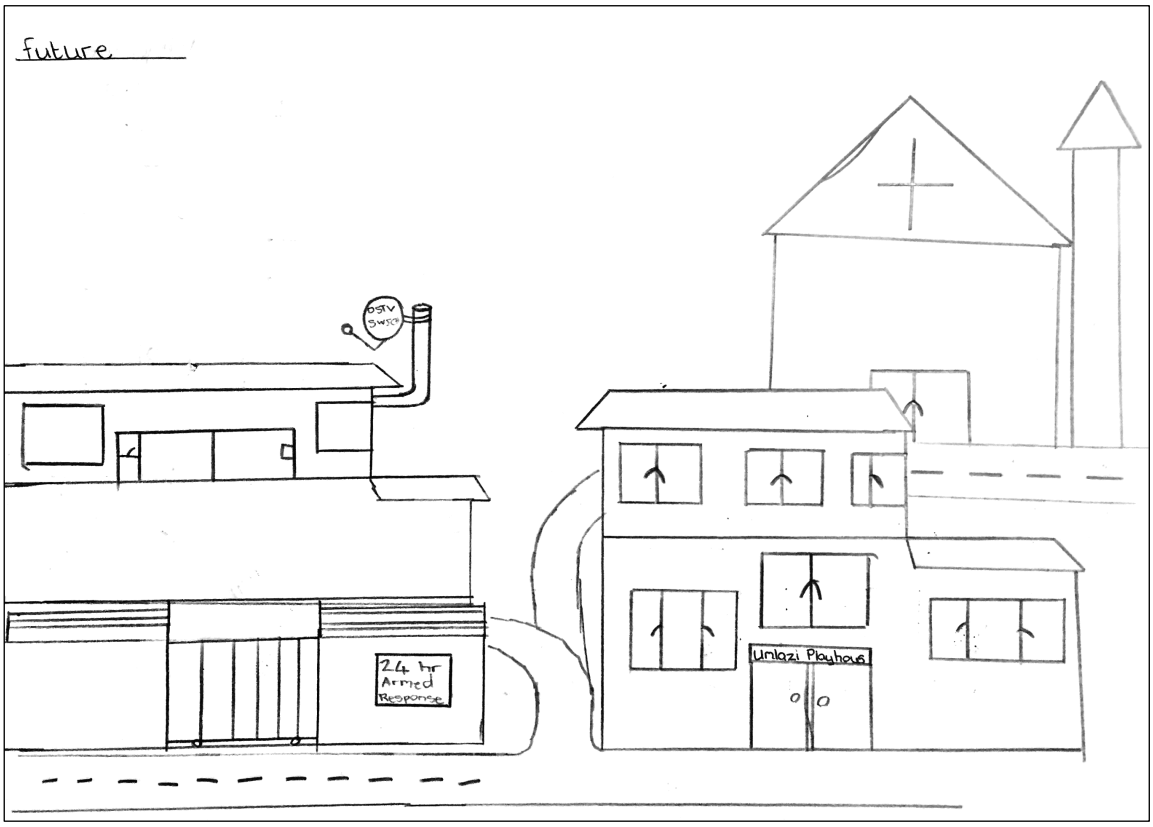


Figure 34: An imagined future in Durban (Bello)[61]

[61] This particular drawing was made by a student from Umlazi (the nearby black township) who commuted to Wentworth. There were approximately 40 per cent of such students at Durban South, as explained in more detail in Chapter 5.

3.2.2 The historical, the national and the global

At a rudimentary level, my research methodology was concerned with two sets of issues: the foreground preoccupations of my interlocutors and the background conditions they navigated.[62] While this distinction is helpful, separating the background into the four realms of local, national, global and historical helped me grasp, both in the process of data collection and in analysis, the nuances of context and the interconnectedness of social, economic and cultural processes occurring on different spatial scales.

The historical realm was often at the forefront of my mind—perhaps even more so than the local realm I was immersed in—for the temporalities of the Anthropocene underpinned many of my questions. Themes of intergenerational justice and knowledge transfer, historical responsibility, the future of local ecosystems, the planet and humanity loomed large throughout this project. Data that helped me understand this realm better came, apart from all the methods I mentioned in the previous section, from oral history interviews with community members who were usually above the age of 60,[63] as well as archival research and document analysis.[64]

The national realm, then, was both spatial and temporal, encompassing the 'there and then' of the process of state formation in the wake of colonial and totalitarian regimes and its impact on the 'here and now' (P. Gardner, 2010). My methodology in studying the national

[62] I came across this distinction in Narayan's reading of Sally Falk Moore's work: 'The contexts that serve as backdrops to events can include larger historical processes. So for example, another influential anthropologist, Sally Falk Moore, argues that ethnography should show "how local events and local commentary on them can be linked to a variety of processes unfolding simultaneously on very different scales of time and place." She makes a helpful distinction between "foreground preoccupations", or what people themselves make of events, and "background conditions" that surround and inform these events' (Narayan, 2012, p. 12).

[63] Abrams (2010, p. 1) defines oral history as 'the act of recording the speech of people with something interesting to say and then analysing their memories of the past'. Conducting oral history is, however, not simply a question of recording facts or reconstructing the past. As Abrams (2010, p. 7) points out, 'whilst oral history produces useful evidential material in the form of description and factual information, the oral history narrative itself has considerable significance in that it is a way by which people articulate subjective experiences about the past through the prism of the present'.

[64] Specifically, I focused on diachronic analysis of archival data that originated in the post-Independence (after 1947) period of Indian history, and the post-apartheid (after 1994) period in South Africa. The collections included the National Archives of India in New Delhi, the British Library Oriental and India Office Collections, London and numerous private collections of my informants. These sources helped inform a critical analysis of education policy as it related to environment and sustainability in India and South Africa, as well as the overarching state dynamics impacting the discourse on education, which are discussed in Chapter 4.

can thus be compared to Foucault's idea of the 'history of the present' (Garland, 2014), and I elaborate on the specific methods and the similarities and differences between Foucault's conception and the methodology I used in my research in the opening pages of Chapter 4.

Finally, the global realm was present in interviews, focus groups and most informal interactions. I sought to relate the local realities of my field sites to global narratives of environmental decay, dystopian futures and anthropocenic slow violence, while also trying to understand how global anthropocenic dynamics, including the hegemony of neoliberal transnational capitalism and attendant bureaucratisation, impacted my sites. Much of the narrative in the following chapters is my attempt to make sense of these dynamics.

3.2.3 The 'other' fieldwork

Apart from my fieldwork in Pashulok and Wentworth, several other stretches of fieldwork contributed to my thinking about the project. These included a trip to Paris to interview UNESCO staff at the section working on ESD, a 10-day stretch of intensive research in Madhya Pradesh, India, at a *Jeevan Shala* (School of Life) in Trishul,[65] an 'activist' school established by the Narmada anti-dam movement, visits to 'activist' schools in South Africa,[66] and a number of conferences that dealt with ESD research, policy and practice.[67] While these additional sites of the global field of the (de)politicisation of education in the Anthropocene era were initially intended to be part of this ethnographic account, they had to be excluded due to the broad scope of the project. However, the insights and moments of recognition that emerged from this 'other' fieldwork have shaped the ways I approached my main research sites in Pashulok and

[65] Trishul is located in the Nandurbar district of the state of Maharashtra, near the banks of the river Narmada.
[66] Most notably, Khanya College in Johannesburg, whose primary aim 'is to assist various constituencies within working-class and poor communities to respond to the challenges posed by the forces of economic and political globalisation' (Khanya College, n.d.).
[67] While I presented papers at most of these conferences, I also observed and interacted informally with scholars, policymakers and practitioners working on ESE as part of my research fieldwork. These observations and interactions helped me better understand the supra-national ideoscapes shaping ESE research, policy and practice and therefore also helped me contextualise my findings from Pashulok and Wentworth.

Figure 35: Researching at a Jeevan Shala (photo courtesy of Tarini Manchanda)

Wentworth and the ways I interpreted data from these sites. I occasionally refer to events that took place during this other fieldwork whenever they help illuminate an argument related to the main sites, and I intend to work with these data further in future publications.

3.2.4 Field supervision, institutional affiliations and dissemination of preliminary findings

During my fieldwork, I received field supervision in both India and South Africa. In Delhi, Dr Manish Jain at the School of Education of the University of Ambedkar helped me make sense of the realities of my Pashulok site and to situate these in the greater context of India's postcolonial education discourse. In South Africa, Dr Robert O'Donnaghue at the Centre for Environmental Education at Rhodes University in Grahamstown played a similar role. Rob, Dr Jim Taylor and I would meet regularly at Jim's farmhouse, about an hour's drive from Durban, to discuss my progress and talk about how my findings might fit in with the research of other scholars working on education in South Africa.

Thanks to these arrangements, I was also able to obtain institutional affiliations during my time in the field with Ambedkar University in India and Rhodes University in South Africa.

Later the University of KwaZulu-Natal (UKZN) gave me formal affiliation as a visiting scholar at its Centre for Civil Society.[68] This allowed me to engage with academics and students at these universities who provided helpful feedback.

3.3 Research ethics and safekeeping

Throughout my research, I followed University of Cambridge[69] and the British Educational Research Association ethical guidelines (BERA, 2018). All interviews, focus groups, workshops and structured observations were conducted with participants' written informed consent. Access to schools was formally approved by their respective principals, with whom I shared extensive background about my project and who completed checklists as I walked them through all the activities that would take place at their schools to ensure that they understood each research method before giving their permission. By default, all participants are anonymised in this thesis.[70] Several informants are named; this is because they expressly wished their names to be included and have signed a written permission to that effect. In all such cases, I shared relevant sections of the final draft of the thesis with these individuals and asked them to authorise these; they also had the option of making changes to their quotes, but only one respondent did this. The schools too are anonymised and I refer to them throughout the text using the pseudonyms Durban South Primary and Seema Primary.

I also followed best research practices with regard to safekeeping and working with minors. The parents/legal guardians of all the children who participated in this study were informed of my research goals and signed informed consent forms on behalf of their children.

[68] While Rhodes University provided the official affiliation needed to obtain the relevant permissions and visas, UKZN was located much closer to my South African research site. Several academics affiliated with the University had worked on topic related to South Durban and environmental activism.
[69] The project went through all standard ethical clearance procedures. At the time of the upgrade viva in 2016, there was an extensive discussion about the ethical implications of participatory film-making due to its unusual nature and a decision was arrived at that my research design fulfilled all relevant ethics criteria.
[70] This is also the case for all other output that has or will come out of this project in the future.

Throughout the research process, I ensured that at least one other person was present in the room whenever I worked with minors. While taking photographs of research activities, I used camera angles that hid the faces of students whose guardians did not give written consent to participate in the research project.[71]

A separate ethics procedure applied to the filmmaking workshops. This followed the same ethics guidelines and combined them with procedures inspired by David MacDougall's ethics protocols submitted to Australian National University in Canberra at the time of his research using participatory observation filmmaking, and by Nigel Meager, who conducted similar research in England.[72] As part of these procedures, I organised sessions on the ethics of filming within the workshops and explained to the children the need to always ask for permission from any person they film before turning on the camera. We also practised this as part of the hands-on exercises within the workshop syllabus. The parents of children participating in the workshop signed separate, detailed informed consent forms and met with me and a school-appointed teacher responsible for the workshop to discuss the project in detail and address any questions they had. These meetings were also necessary in order to choose the families that would look after the cameras once they were handed over to the children, and to discuss safety concerns.[73] The films were not made public and are only accessible online through password-protected links;[74] they have only been shown at the two participating schools

[71] In the rare occasions where the faces of such students appear in photos included in this thesis, these faces were blurred using Adobe Photoshop CC 2019 to protect the identities of these children. In such cases, a footnote is attached to the photograph explaining the reason for blurring.

[72] As mentioned earlier, Meager is a recent doctoral graduate of the Faculty of Education at University of Cambridge who introduced me to the method of participatory observational filmmaking and the work of David MacDougall.

[73] Safety of the equipment was a major concern in both sites. After approximately three weeks, the children would take the cameras and other equipment included in the camera kits home and have access to it 24 hours a day. The possibility of damage and theft of the equipment was very real in my mind, especially in Wentworth, where children shared with me their concern that they might get mugged while carrying the cameras in the community; we then agreed they would always work in pairs, only in daylight and away from areas where they believed mugging was likely. I expressed this concern with David MacDougall, who reassured me that if I give children the responsibility of looking after the equipment, they will live up to the task. This indeed was the case, and all equipment made it back safely to Cambridge.

[74] Except 'Ganga—the Life-Giver' (the film made by students in Pashulok), which the students themselves decided to upload to YouTube for the purposes of sharing it with their family and friends.

and to invited audiences at the University of Cambridge and University of KwaZulu-Natal for the purposes of obtaining feedback from other scholars.

These procedures are a necessary but insufficient step in conducting ethical ethnographic research in the Global South. Due to the histories of exploitation and racism, of slow and fast violence, and the continuing power differentials between the researcher and the researched, a project that meets all institutional ethics standards can still be considered a form of extractive research.[75] I worked to avoid this in several ways. Trying to 'give back' to the participants—while recognising that I would not be able to repay my debt of gratitude to them—was built into the project research design at the beginning. The filmmaking workshop, for example, was designed to be an opportunity for children to learn transferable skills and to enrich their schooling experience, and one principal reason for returning to each research site with preliminary findings was to ensure that participants had an opportunity to hear the conclusions I reached—and to challenge them if they wanted to. While such measures might help mitigate the extractiveness of research conducted in the Global South by a scholar from the Global North, they cannot repay the debt to the dead (and the debt to the enslaved, exploited, tortured and killed) on which the foundation of Western (social) science is built. The only ethical option, it seems to me, is to recognise this reality and admit that we may never be able to meet the ethical standards we set for ourselves fully.

3.4 Data analysis

Upon completing my main fieldwork (the second phase of the project), I began to analyse the data using an interpretive hermeneutic framework typical of in-depth thematic ethnographic analysis (Dillabough, 2008). This process was designed to be generative and iterative and to

[75] These were visible to me throughout my fieldwork. The colour of my skin, my accent, affiliation to Cambridge University, the rented car I drove in Wentworth, my laptop—the glances and remarks (both spoken and unspoken) of my interlocutors in response to these and many other 'displays of (relative) affluence' were daily reminders of the power differentials between us and frequent sources of discomfort while in the field.

follow a sequence of patterns from developing informal coding procedures to deeper and more in-depth analysis of the symbolic dimensions which underlie all data sources. To assess all material documents as part of my ethnographic analysis, I drew from a critical phenomenological analytic approach (Dillabough & Kennelly, 2010) that encompasses the historical realm of ethnography (P. Gardner, 2010).[76] The goal of this analysis was to identify recurring themes and any patterns of divergence and convergence across and within datasets. The broad interpretive optics of my data analysis were premised on the processes described by Lecompte and Schensul (1999). Specifically, I followed a five-stage process designed to maximise analytical rigour and triangulate data in the process of interpretation (Appendix S).

Ultimately, ethnography is a deeply subjective enterprise in which open-endedness and leveraging the researcher's own subjectivity are hallmarks of rigour, along with any theoretical and methodological toolkits applied to collecting and analysing data.[77] In the chapters that follow, I seek to embrace this reality and attempt to draw the reader into the field as a way to experience some of the intricacies of 'educating for the Anthropocene' as seen through an ethnographic gaze fixed on activism and schooling in Wentworth and Pashulok.

[76] Depending on the nature of the documents I am able to access during the course of the research, I may draw on Fairclough (2013) for critical discourse analytical tools.
[77] As James Clifford (1986, p. 6) writes, 'ethnographic truths are . . . inherently *partial*—committed and incomplete' as a result of their subjectivity.

Part Two

The Liminal State and the Instrumentalisation of Schooling

Figure 36: Outside a gated community in Bangalore, India, 2016

Dilemma Two

Representing Liminality: Total Institution or Tough Love?

One morning at Durban South Primary, I found the campus deserted. It was a day like any other, with the refinery smokestack throwing up flares and the hipsters, gangsters(?), churchgoers and other characters milling about, throwing curious looks in my direction across the school fence. It had slipped my mind that the 7th-grade students (who I was primarily working with) had left for camp that morning and it seemed there was nothing for me to do. I decided to check Megan's office; as one of the long-term teachers and a department head, she was someone I had been trying to interview for weeks but our schedules never aligned. She was in, and the quiet of the morning allowed us to speak at length about the challenges facing both students and teachers, about the school's crumbling paper-thin walls and about just how rough Wentworth was.

What really captured my imagination, however, was not Megan's words but the drawings and photographs on the wall of her office. I was not sure what I was looking at, so I asked her. She paused, let out a quiet sigh and started telling me a story. 'Did Johny come up in any of your interviews?' Megan asked me. I said he did; I had heard he was one of the notorious troublemakers at Durban South. But Megan was much more interested in cause than effect. 'His mother died, his sister has HIV, he . . . I am not sure of his status. His father lives in Chatsworth and he lives with his uncle,' she began.[1] *Megan was more animated than I had ever seen her; she usually kept to herself and was rarely seen outside her office or the classroom. That morning I was talking to a different Megan.*

I learned that Johny's uncle had three children of his own whom he always treated better than Johny, who often got the blame for their mischief. One of the children only had to

[1] Chatsworth is an Indian township in the southwestern part of Durban, not easily accessible from Wentworth without a car.

complain to their father and Johny would get 'a beating with whatever the uncle has in his hand. And the uncle is a mechanic and Johny has been hit, I think, with every tool, every tool'. The level of detail in this story was remarkable; I had not come across another teacher who knew so much about a child's life outside the school walls. '[Johny] is a bully of note because that's what he's exposed to, that's how he's treated and that's how he deals with things, 'cause that's how he's dealt with', Megan continued. She spoke next of her colleagues. 'Some teachers just won't understand that, they won't accept it, they will not embrace him, they will not say to him "you have the potential to do extremely well, come and sit here", no . . . I've had people come in [and say to me], "why do you have that scum on your wall? I just wait for him to leave the school and you still want to put his picture on your wall?"'

This did not surprise me. I spent a good deal of my time in the field talking to teachers who did not seem to believe their pupils had any curiosity, motivation to learn or individual agency. As I reflected on the mosaic of experiences that contributed to my perception of Durban South—the everyday rituals of discipline, listening to shouting and screaming, the normalisation of violence against the pupils—in my ethnographic diary I compared the schools to Foucault's (1979) idea of the prison as a panopticon. But there was no denying that such comparisons were driven as much by my visceral reactions to what I was observing around me as they were the product of an intellectual effort to make sense of the field. And while emotional responses do not have to be the enemy of analytical thought, as Ruth Behar (1996) has so beautifully shown in her work on Latin American migrants in the United States, I wondered if the sympathy I felt for the children coloured my understanding of their teachers; perhaps I had judged them harshly as a result. After all, both of my key informants—Pranay in Pashulok and Aruna in Wentworth—were highly motivated educators who appeared to care about their students' futures. Could it be that what I was interpreting as a manifestation of an oppressive, (post)colonial education was at least in part an expression of tough love? That perhaps these

teachers believed, or even knew it to be true, that their methods had the potential to turn things around for these children? Where did the influence of bureaucratisation and depoliticisation end and caring individual agency begin?

Megan was now telling me how the drawings and photographs came to be on her wall. Johny's class was due to go on an excursion to the Durban Playhouse, a theatre in the city's downtown. But another teacher, Aruna, told him he was not allowed to join because he had bunked school the day before. Johny told her he did not bunk; he went to see a doctor, who removed a cyst from his eye. Aruna did not believe him because she had passed by him that day as he was talking to a group of boys. Both stories were apparently true: Johny met his friends on the way to the doctor and chatted to them before going on, and that is when Aruna saw him. But then he crossed a line: not only was he speaking back to Aruna, he clicked his tongue at her, a gesture considered very rude. 'He's been accused of something he didn't do', Megan said emphatically, 'so the agitation of what he's been through at home is coming through as being rude and aggressive. But now you being rude to me, you clicking your tongue at me . . . There are several more things that you have done now in this time than bunking school, so that's not even an issue now, we not even going to talk about that . . . A long story cut short, he wasn't allowed to go and he was crying because he wanted to react, but he couldn't react'.

I looked at the picture (Fig. 37) again. It seemed to be of a scene in Wentworth. Above the drawing there were three photographs of Johny as he made the drawing. The picture showed boxlike houses with flat roofs and narrow streets and a large sun in the sky. The drawing looked like it had been tinkered with, as if parts had been erased, and the house in the centre had a peculiarly bright window. There was a rawness to the picture, with its dark colours, large plain areas and the eerie absence of people. This was no realism and yet it felt very Wentworth-like.

When Megan saw Johny cry, she asked him to come to her office. 'I gave him a piece of paper and some chalk and I got him to draw, and he drew this picture but he had lots of rain coming down, which he later on took away and he—the windows were broken here. It's a shop just down the road, and he had a caption at the bottom, "Hate this shop, they are thieves"'. When Megan asked why he wrote this, Johny told her that he once bought a loaf of bread at the store, worth R11, and paid for it with a R20 note. The shopkeeper said he did not have change, and Johny was 'shoved out'. Ever since, whenever it rains, Johny goes to the shop early in the morning when it is closed, picks up rocks and breaks the shop window. Megan asked how many times he had done this, and Johny said four or five. She said to him, 'You know, it costs them like R80.00 for every window you broke to have it fixed, maybe more than that if they not fixing it on their own. So let's just say R150.00 times four times—that is R600.00. I think you've got back your R8.00 that they took and refused to give you, so it's time to stop doing that now'. Johny said nothing in response, but the next day he came to Megan's office again and asked to see the picture he made. 'He took the white chalk and he cleaned up the windows and he rubbed out his little caption there about them being thieves and rogues and whatever, and he—yeah, he changed the picture and he took away the rain. I said to him "why you taking away the rain?" He said, "'cause now I look at the shop as not something that I need to get back at. So I'm not going to wait for it to rain and go and break their windows anymore"'.

Apparently all it took for Johny to stop acting out was for a single teacher to offer him a way to tell his story. And, given the lengths to which I had seen teachers at Durban South go to push their students, I wondered if perhaps each of them had a 'Johny' tale to tell, if underneath the shouting and verbal abuse they truly cared. When Megan finished telling me the story, I asked her why she keeps the drawing and the photographs. 'To me it symbolizes

Figure 37: Johny's drawing on Megan's wall

that there's hope for him. He has the potential to heal, but he has so much of pain'. The children in Wentworth, she believed, 'think that they have nothing to offer you, and they feel very small and inadequate in their capacities, but if our teachers would just open their mindsets to who these children really are, they are—I don't know, for me, phenomenal. They go through—if you see them dressed for school, you would not believe where they come out of. Where they come from. Little houses with mattresses in the kitchen, no electricity, no hot water, gas, a little gasket that they use for everything'.

I did not have the detailed knowledge about these children's life circumstances that Megan had accumulated over the years, but my instinct was to empathise with them the best I could and—given the racialised history of South Africa, the colonial legacies of anthropology and social science at large, and the fact that I was white—steer clear of blaming these children for their own predicament. I nodded as Megan spoke; my dilemma was not whether to agree

with her but how to square her words from that morning with the, in my view, harsh practices I witnessed at Durban South day after day. Could the apparent contradiction be due to the cultural lens with which I viewed empathy, a lens that prevented me from seeing these practices for what they truly were—expressions of tough love in the context of a rough township? Or were these words simply a rationalisation for problematic practices? Were the teachers agents of an institution or activists in their own right, battling the legacies of apartheid by trying to bring out the best in these children?

The dilemma of choosing between these two interpretations points to a politics of representation fraught with my inevitably limited understanding of my informants' social realities. The dilemma, in other words, was not so much between choosing one interpretation over another as it was in deciding which claims I felt confident enough to include in this ethnography. As the pages of this thesis attest, the word 'felt' in the previous sentence was important in this process because ethnographic confidence is often as emotional as it is intellectual. While it might appear that some of the conclusions I reached about schooling in Pashulok and Wentworth, as presented in Chapter 5, were shaped chiefly by my understanding of the histories of these two spaces, the affective politics of delineating ethnographic 'truths' from opinions played an equal part in how I navigated this dilemma. Like Johny, I kept coming back to what I knew. I did not always accept my informants' invitations into their realities; but, like Megan, they did often drag me out of my bubble. This made me realize that my interlocutors were citizens of postcolonial, liminal states, which had a profound influence over their worlds; in the next chapter, I examine the histories of these states and their on-going ideologies and practices that regulated my informants' lives.

Chapter 4.
The Ideoscapes of Depoliticisation

We accept what's happening because we're too lazy to go and actually sit and think about the long-term effects these things are going to have on us. And once you're educated enough to understand something better, then you take it on. You're not going to accept it.

Grace, mother of a 12-year-old boy in Wentworth

In his remarks at the Eleventh Hoernle Memorial lecture delivered in 1955 to the South African Institute of Race Relations in Johannesburg, T. B. Davie (1955), then vice-chancellor of the University of Cape Town, called the situation of education for non-whites in South Africa 'depressing'.[1] He remarked that 'it is the intention of the framers of the [Bantu Education] Act [of 1953] that the education of the African child shall be different from that of the European and, further, that this difference shall establish and perpetuate an inferior status in the African in relation to the European' (Davie, 1955, pp. 15–16). According to Davie, this revealed the government's intention behind the act; the goal was not 'to stimulate the development of [a child's] intellect and character, but to prepare it [sic] for a certain service to the state: a service which is primarily that of servant of the Europeans and secondly one which carries with it no promise of advancement towards the eventual social and political status which he [sic] covets in order to benefit to the full under western democracy'. Davie's analysis is consistent with a historiography of apartheid (Field, 2012; Thompson, 2014) and suggests that the education systems of that era were not designed to politicise the population (in an Arendtian sense) or to

[1] The institute, which still exists, was at the time of apartheid one of the centres of (white) liberal thinking that opposed the apartheid policies of the Nationalist Party government and advocated 'bridging the gap' between South Africa's racial groups; some of its views were, however, influenced by the racial ideologies of the time and it sometimes clashed with the ANC and other representative bodies of the non-white majority (Everatt, 2010).

help create the civic equality needed for agonistic pluralism and instead served as an 'anti-politics machine', to borrow Ferguson's (1994) expression.[2]

Three years later, in November 1958, India's Planning Commission, which was responsible for designing the country's all-encompassing five-year plans, was contemplating significant changes to the education system.[3] 'Democracy requires above all that the citizens owe loyalty to the nation', it wrote in its report. Such loyalty, according to the commission, could 'only spring from an awareness of and broad acceptance of the values inherent in our civilisation and faith in our future goals and present endeavour . . . In order to evolve as a classless society we will need to launch an all-out attack on casteism, communalism, linguistic fanaticism and religious intolerance' (Planning Commission of India, 1958, p. 2). The idea of a 'classless society' was a cornerstone of Nehruvian socialism that was at its height in the late 1950s (Guha, 2011). This regime sought to use education to relegate the vast majority of Indians to the position of docile subjects (Ludden, 1992; Sutoris, 2016; Zachariah, 2005),[4] effectively turning them into the wheels of government-designed development machinery.[5]

In both countries, government-sponsored education contributed to the exclusion of citizens from the political sphere, as understood by Arendt. Smith (2005, p. 54) explains that 'our appearance in the political sphere is not a matter of any functional role we might play in

[2] By this I mean the process of collectively agonising over a question as equals in an effort to find a way forward; see Chapter 1 for a more detailed definition.

[3] The change was to reflect what the report perceived to be the essential features of India's history and culture: 'The two most characteristic features of Indian civilisation have been the ethical approach to life's problems and broad tolerance of differences, and these are attitudes which are not irrelevant today but more than ever needed' (Planning Commission of India, 1958, p. 2). The report's essentialising of 'civilisation' reflected an orientalist, top-down approach to educational development.

[4] The report acknowledged the limitations of the system, tacitly admitting the government's failure to make more progress in this area since Independence: 'The ordinary schools hardly make any contribution in this direction. In fact, they work in many respects in exactly the opposite direction. Learning is organised on a competitive rather than a cooperative basis. With their accent on bookishness, our schools accentuate the existing distaste for manual labour. They give no training in responsibility and turn the intelligent boys away from the village' (Planning Commission of India, 1958, p. 2). Some of these criticisms are still applicable today, as reflected in Krishna Kumar's (1988) analysis of the "textbook culture" in Indian schools.

[5] While the vision reflected in the report was dominant at this time, other viewpoints circulated within the government and proposed alternative definitions of education, including those rooted in the ideas of Tagore and Gandhi. Elsewhere I have analysed some of these competing educational visions, as they manifested in government propaganda films of the era (Sutoris, 2018a).

society, as, say, mechanic, chef or academic, but is envisaged as a locus of creative self-actualisation in the presence of others. For Arendt, this is precisely what it should mean to be a citizen'. However, the idea of citizenship in apartheid South Africa and in post-Independence India was lopsided; citizens were not to act, they were merely to follow predetermined patterns of behaviour. Arendt (1970, p. 31) notes that actions differ from mere behaviour in that they 'interrupt what otherwise would have proceeded automatically and therefore predictably'. The suppression of action—and its prerequisites, agonistic pluralism and the promise of politics—appears to have been, despite very different histories, integral to both countries in the wake of World War II. And, as is evident in what follows, this convergence is not only spatial but temporal, for when it comes to depoliticisation through formal education, the India and South Africa of today have much in common with their 1950s predecessors.

Before launching into ethnographic accounts of schooling and activism at my research sites, I will explore this convergence, in particular as it manifests in Pashulok and Wentworth. Doing so demands a historical contextualisation of the Indian and South African nation-states to illuminate the forces shaping the political and cultural landscapes navigated by my interlocutors. To understand these forces, it is helpful to invoke Ricœur's concept of a socio-political *imaginaire,*

> *that is, an ensemble of symbolic discourses that can function as a rupture or a reaffirmation. As reaffirmation, the imaginaire operates as an 'ideology' which can positively repeat and represent the founding discourse of a society, what I call its 'foundational symbols,' thus preserving its sense of identity. After all, cultures create themselves by telling stories of the past. The danger is, of course, that this reaffirmation can be perverted, usually by monopolistic elites, into a mystificatory discourse which serves to uncritically vindicate or justify the established political powers. In such instances, the symbols of a community become fixed and fetishised; they serve as lies. (Ricœur, 2004, p. 138)*

States' tendency to exclude citizens from politics and the attendant 'individualisation of responsibility' (Maniates, 2001) for environmental degradation is a form of 'fixing' collective agency through the preclusion of pluralistic political action via a 'mystificatory discourse' in which systemic change is driven by narrowly defined elites rather than by citizens at large. It is precisely this discourse that state schools help reproduce (as seen in Chapter 5) and activists hope to disrupt with Arendtian views of agency and politics (as explored in Chapter 6).

To understand where depoliticisation comes from, this chapter applies an approach akin to Foucault's (1979) 'history of the present' which 'begins by identifying a present-day practice that is both taken for granted and yet, in certain respects, problematic or somehow unintelligible . . . and then seeks to trace the power struggles that produced [it]' (Garland, 2014, p. 373). While my approach shares a starting point with Foucault in that it identifies a problematic present-day phenomenon (the depoliticising forces acting within India's and South Africa's education systems) and traces its historical origins, I am not interested merely in the power struggles that led to it.[6] Rather, I examine the historical evolution of what Appadurai (1990) calls ideoscapes or cultural flows (as discussed in Chapter 2).

The key questions I pose in this chapter are: In what ways have the (post)colonial histories of India and the (post)colonial and eugenicist histories of South Africa shaped the ideoscapes of depoliticisation of particular generations of young people and environmental issues in these two states? How have they shaped the cultural and political landscapes navigated by teachers and activists in these spaces?

[6] I first identified this pattern of depoliticisation during my pilot study in 2016, as described in the first methodological dilemma preceding Chapter 1. I based the claim that this is a large phenomenon, rather than isolated incidents in the few schools I visited during the pilot, on a much wider body of research, including my ethnographic fieldwork in schools at my eventual sites in Pashulok and Wentworth (Chapter 5), participation in ESE conferences and events throughout my fieldwork (Chapter 7), and a literature review of multiple bodies of theoretical and empirical research reflecting this trend (Chapter 2). What I mean by 'depoliticisation' becomes refined and qualified in later chapters as I tell the story of this ethnography; for the purposes of this 'history of the present', it suffices to acknowledge this phenomenon and its basic features as described in Chapters 1-2, in particular Maniates' (2001) conceptual paper about the individualisation of responsibility for the natural environment.

Answering these questions requires an empirically grounded theory of the state. Walter Mignolo's theoretical concepts—rewesternisation, dewesternisation and decoloniality—are particularly helpful in devising such a theory. They make possible a more nuanced analysis than the binary concepts common to postcolonial studies, such as the colonial/postcolonial dichotomy.[7] Rewesternisation refers to the Western states' efforts to rebuild the confidence the world puts in them across 'all the levels of the colonial matrix of power', including the economy ('saving' or 'reimagining' capitalism), international relations and knowledge production (2011, p. 36). Dewesternisation, in contrast, denotes a state's effort to distance itself from the hegemony of the West in the name of national tradition and interest while in fact adopting much of the same logic and replicating the same power structures as Western states. 'Dewesternizing states are as capitalist as Western imperial states, . . . their doing is similar, but the storytelling about their doing is different', Mignolo (2018, p. 103) writes. The distinction between rewesternisation and dewesternisation is helpful in that it enables imperialism to be decoupled from global capitalism: a state might reject cultural imperialism while embracing the coloniality of capitalism, thus retaining elements of the colonial matrix of power. Finally, 'decoloniality' (or, more specifically, pluriversal decoloniality[8]), by far the most radical of the three concepts, refers to 'the recognition and undoing of the hierarchical structures of race, gender, heteropatriarchy, and class that continue to control life, knowledge, spirituality, and thought, structures that are clearly intertwined with and constitutive of global

[7] According to Tlostanova and Mignolo (2012, p. 35), 'postcolonial studies bring forward a change in the content but not in the terms of the conversation. The latter presupposes delinking and shifting the geography of reasoning, which is not obvious to us in various manifestations of postcolonial studies'. For a critique of postcolonial studies from within, see Spivak (1999).

[8] Mignolo sees the concept of pluriversality as an alternative to the 'universality' inherent in Western cosmology, which has shaped Western hermeneutics. 'There is no reason to believe that the *Bible* is universal and the Popol Vuh is not. The universalisation of universality in the West was part of its imperial project', Mignolo (2013) writes. The alternative he proposes recognises the coexistence of multiple cosmologies: 'Pluriversality is not cultural relativism, but entanglement of several cosmologies connected today in a power differential'. Escobar (2017) has also used the concept, applying it to design in imagining and building alternative material worlds.

capitalism and Western modernity' (Mignolo & Walsh, 2018, p. 17).[9] The 'fetishised' *imaginaire* of development rooted in a colonial matrix of power—which gets reproduced due to the lack of recognition of and effort toward decoloniality[10]—is behind the sociopolitical liminality of state institutions, including education, thus enabling slow violence.

In this chapter, I rely on a range of sources to illuminate the histories and ideoscapes of the Indian and South African states. Interviews and conversations with academics and journalists in Delhi, Bangalore, Ahmedabad, Durban, Johannesburg and Cape Town gave me useful starting points for tracing histories of depoliticisation beyond simplistic narratives that leave responsibility to 'colonialism' or 'totalitarianism'. These conversations often alerted me to obscure local literature, which in turn enabled me to more effectively contextualise the narratives of slow violence that the older inhabitants of Pashulok and Wentworth shared with me during my fieldwork.[11] Taken together, the work of postcolonial and decolonial scholars, historians, geographers and sociologists, along with conversations with Indian and South African academics and journalists and the memories of slow violence in Pashulok and Wentworth, provide fertile ground for one of my key argument—that the depoliticisation of the environment not only was part of the genetic make-up of both countries at the beginning of their respective democratic rules but continues to be reinforced by the governing regimes of the high Anthropocene.[12] Slow violence,is not a new phenomenon, nor can it be ascribed to

[9] Associated thinkers are many and include W. E. B. Dubois, Anna Julia Cooper, Aime Cesaire and Frantz Fanon (Mignolo & Walsh, 2018, p. 8).

[10] Tlostanova and Mignolo (2012, p. 33) point out that 'postcoloniality presupposes postmodernity, while decolonial thinking and decolonial option are always already delinked from modernity and post-modernity. It brings to the forefront a silenced and different genealogy of thought. The decolonial option originated not in Europe but in the Third World, as a consequence of struggles for political decolonization'.

[11] Such literatures are not always easily accessible. Online search engines and library catalogues prioritise studies published in high-ranking (i.e., Western) journals, and books published by academic presses in India and South Africa are often not available even in the largest libraries in the UK. Many of the publications I quote in this thesis are copies I purchased during my fieldwork trips in local bookshops or copies kept at the British Library in London.

[12] It is not my intention to imply that these governance regimes take away the agency of people who live under them. The stories of many of the characters of this ethnography are a testament to the ability of individual agency to overcome structural forces.

development or neoliberalism alone; it grows out of a colonial-capitalist *imaginaire* that holds individualism as sacred over the collective, including collective responsibility for the earth.[13]

4.1 Gassing the poor, praising the (Hindu) gods: The submersion of politics in dewesternising India

Ramachandra Guha is one of India's most influential intellectuals, someone whose acquaintance I had hoped to make ever since I read his *India After Gandhi* (2011), perhaps the most exhaustive history of India since Independence published to date. Guha, who strikes me as a modern-day polymath, is also a noted historian of environmentalism. Researching the sociohistorical context of the construction of Tehri Dam gave me a good reason to contact Ram, and a few months later I found myself interviewing him in his car on his way to the Bangalore airport. A slim, tall and kind man with thick glasses, he looked a lot less intimidating than I had expected, but the passion with which he spoke did not seem to match his gentle disposition. 'It's not just inadequate, it's positively inimical to environmental sustainability, both state governments and central governments', Ram said to me when I asked about his views on the environmental policy of Narendra Modi's government. He went on to list the numerous challenges facing India's environment: 'A resources dependent population being denied access to their resources space because of development projects, unregulated industrial development, pollution control, disposal of chemical waste, somewhat misplaced agricultural policies which lead to excessive discharge of groundwater, air pollution'—the list was seemingly endless. 'We are, in a sense, an environmental basket case', he concluded.

[13] Many colonial ideologies rely on casting the colonised as a homogeneous group in need of 'civilising' (Said, 1979), but this does not make colonialism conducive to fostering communal exchange or the responsibility for the commons. On the contrary, the more politically isolated the colonial subjects are, the easier it is for the coloniser to establish and maintain domination.

Ram Guha's diagnosis did not surprise me, though his use of such strong language underscored for me the urgency of the environmental crisis facing India and the rest of the world. What I was really curious to hear, though, was his assessment of the reasons behind the crisis. 'Part of it is in the sense that we need rapid economic growth to lift our people out of poverty', he began. 'Part of it is because of the deep links between industrial houses and political parties, funding of elections and all of that, and part of it is also just this ideological belief that environmentalism is a rich man's phenomena'.[14] Here, in two sentences, Guha touched on three interwoven threads of India's history that have the potential to create the perfect storm for individualising responsibility for the environment. Yet, there is more to these ideoscapes.

The depoliticisation of the environment in India is a composite affair, brought to the surface by an amalgamation of social, political and economic currents with origins at least as far back as the beginning of British colonial rule. Put crudely, many historians divide India's history into three periods: pre-colonial, colonial, usually dated from the Indian Revolt of 1887, and postcolonial, since 15 August 1947 when, in Nehru's words, 'at the stroke of the midnight hour, when the world sleeps, India will awake to life and freedom' (Nehru, 1962, p. 94).[15] This quote comes from the famous 'Tryst with Destiny' speech, whose title raises the question of what exactly was an independent India's destiny to be? Many freedom fighters would argue that it was to return to the prosperity of its pre-colonial 'golden age', before, some might argue, the British came and destroyed India's chances at development.[16] Gandhi's wing of the Indian

[14] The difference between 'environmentalism of the poor' and 'First World environmentalism' or 'environmentalism in the North' has been dealt with extensively in the literature on environmental movements, with Ramachandra Guha being one of the key figures in this debate. According to Guha and Martinez-Alier (1997, p. 16), 'environmental movements in the North have . . . been convincingly related to the emergence of a post-materialist or post-industrial society'. In India—and elsewhere in low-income ('developing') countries—'environmentalism has emerged at a relatively early stage in the industrial process. Nature-based conflicts . . . are at the root of the environmental movement in countries such as India. These conflicts have their root in a lopsided, iniquitous and environmentally destructive process of development' (p. 17).

[15] This periodisation can be seen, for example, in Kerr (2006).

[16] For a discussion of how such historical narratives have been used by Indian nationalists in mobilising support for their movement prior to India's independence, see Liu and Khan (2014). Such a 'golden age' was arguably an

National Congress (INC) was against the idea of industrialisation, whereas Nehru saw it as the only path to progress.[17] The Gandhians wanted to return to tradition, as they saw it—agriculture-centred, rural, self-sufficient communities—while the rest of the party saw seizing pre-colonial 'tradition' as a tool to establish and maintain political legitimacy (indeed, arguably political hegemony, as discussed in Ayesha Jalal's [2009] work) as it pursued the kind of modernity embraced by the departing colonial rulers. During a vocal debate in the 1930s, 'to Visvesvarayya's technocratic battle-cry "Industrialize–or Perish!" Gandhi replied, "Industrialize–and Perish!"' (Khilnani, 2012, p. 73).[18] Ninety years later, in an age of anthropogenic slow violence, the conflict between the proponents and critics of continued industrial growth is still alive and more relevant than ever.[19]

invention of orientalists rather than a historical fact; such ideas, however, in many cases outlived the period of colonial rule, as discussed by a number of contemporary historians of India, including Prakash (1990) and Singh (2003).

[17] Gandhi's resistance to industrialisation is captured perhaps most powerfully in his manifesto *Hind Swaraj or Indian Home Rule* (1921).

[18] Mokshagundam Visvesvaraya was India's chief civil engineer and politician in the early 20th century.

[19] It is not only the debate itself but also the ways in which it was fought that mirror contemporary dilemmas of India and the wider world. Gandhi, on one side, represented a powerful politics of personal restraint, a form of positive contestation rooted in individual conscience. (For a detailed account of how Gandhi was able to leverage this type of politics in the nationalist struggle for independence, see Guha, (2018)). On the other side, the proponents of industrialisation argued in terms of state policy, all-encompassing economic plans and examples of other countries. And as Mahesh Rangarajan—a noted historian of India's environmental movement who has dealt with, among other issues, the changing relationship between people and their natural environment in late 20th-century India (Rangarajan, 2003)—told me in an interview, their arguments invoked social justice as well 'After all, one of the big supporters of industrialization was Ambedkar', Mahesh recalled, referring to the famous *dalit* with a law degree from Columbia who was instrumental in drafting India's new constitution (Guha, 2011). Mahesh told me about Ambedkar's likely motivation: 'He saw it as something of breaking the bonds of a community which held people down, through modern technology, modern education, access to science, the mobility of labour which comes with urbanization'. Gandhi and Ambedkar, while sharing some of the same goals, including making India free of the practice of untouchability, clashed on a number of issues. Apart from industrialisation, a key point of contention was Ambedkar's demand for a separate electorate for dalits. However, historians have recently attempted to reconcile these two figures; for an overview of the various attempts to do this, see Singh (2014). Today, this debate is not constrained to the worlds of academia or politics. For instance, the 2015 French documentary film *Demain* (Tomorrow) explores contemporary alternatives to environmentally unsustainable lifestyles, seeking to convince the viewer that shifting away from reliance on fossil fuels does not need to be accompanied by lower standards of living.

As we now know, Gandhi and his supporters lost the battle,[20] and Gandhian economics is today at best a footnote in economics textbooks.[21] According to Amitav Ghosh, 'Gandhi was the very exemplar of a politics of moral sincerity. Yet, while [he] may have succeeded in dislodging the British from India, [Gandhi] failed in this other endeavour, that of steering India along a different economic path' (A. Ghosh, 2016, p. 180). And so, Ghosh concludes, 'there is little reason to believe that a politics of this kind will succeed in relation to global warming today'. While this statement may well be true—and the findings of this thesis presented in subsequent chapters certainly support this view—it does not seem to be a sufficient explanation for the almost complete marginalisation of Gandhi's views on development at this critical juncture.

During my previous research in India in the early 2010s, I had the honour of having many conversations with Amrit Gangar, a historian and cultural critic and the curator of Mumbai's National Museum of Indian Cinema.[22] One evening, while walking me to the bus stop near his suburban Mumbai home, Amrit and I talked about the 1947 crossroads of history. Even though the streetlamp provided only a modicum of light, I could see the disgust in his face as he said to me, 'Nehru became the first prime minister . . . and now, look around, this is the kind of country we've got'. My initial surprise at this learned man's apparent but respectful questioning of Nehru, the widely beloved icon of India's freedom struggle, gave way to my wondering what he meant by 'the kind of country we've got'.[23] It took me years to appreciate what I think he was getting at: the environmental destruction caused by the embrace of

[20] This does not mean, however, that Ambedkar won. While independent India embraced industrial modernity as a path toward development, it would be difficult to argue that this has benefitted dalits and other marginalised groups in the way Ambedkar hoped for, especially given the current political climate that in many ways reinforces caste hierarchies (Komireddi, 2019).

[21] Limited attempts have been made to advance the theory of Gandhian economics since Gandhi's death, but they have not received much attention in the field of economics; see, for example, Das (1979).

[22] The planned opening of the museum coincided with the election of BJP 2015, which meant the opening was postponed and, according to unnamed sources in the film industry, changes were made in the concept of the permanent exhibition that reflected a less secular interpretation of India's history.

[23] By universally I mean the reverence with which Nehru is often addressed in public life, as experienced through my own observations and informal conversations with Indian journalists and scholars.

industrial modernity, and the inequality and breakdown of social structures associated with India's embrace of global capitalism.

As tempting as it is to neatly compartmentalise the past and point to specific historical events as watershed moments, the ideoscapes of depoliticisation predated India's independence from Britain or the INC's decision to pursue a policy of industrialisation. Some of these currents compelled Nehru and his allies to align with the pro-industrialisation wing of the INC and later helped turn them, perhaps unconsciously, into political disciples of the country's former colonial masters, with indescribably tragic consequences.

Some events crystallise history, making visible the flows of ideas shaping a state's sociopolitical *imaginaire*. The most shocking and tragic incident of India's post-Independence past, the Bhopal disaster of 1984, is one such event. It is worth discussing at length because, more than perhaps any other event, it illuminates the historical origins of the depoliticisation of environment in India.[24] The disaster lies at the intersection of colonial and postcolonial, dewesternising and rewesternising, developmentalist and capitalist forces of India's and the world's history, exposing in full what Mignolo (2011) calls 'the darker side of Western modernity'. These are the very same forces that stretch back in time, that acted on the British colonizers of the 19th and 20th centuries and on the minds of Nehru and the INC elites opposing Gandhian economics through the 1930s and 1940s. They also extend forward in time, well past 1984 and into the present, where they help to explain the depoliticising forces in education systems in India and beyond.

[24] By 'depoliticisation of environment' I mean the evacuation of Arendtian politics from the imaginaries, discourses and practices related to the natural environment.

The world's deadliest industrial accident to date, the Bhopal disaster instantly killed at least 3,800 (Broughton, 2005)[25] and maimed hundreds of thousands (Kurzman, 1987).[26] More than half a million Indians were exposed to the 40 lethal tonnes of leaked methyl isocyanate gas from the Union Carbide India Limited (UCIL) fertiliser plant on the night of 2-3 December, 1984. Kim Fortun (2001), who undertook an extensive ethnography of the aftermath of the disaster, refers to the efforts at rehabilitation and compensation as the 'second disaster' of Bhopal. Union Carbide, the American mother company of UCIL, settled the victims' case against it in 1987 for $470 million, a deal negotiated with the Indian government which took it upon itself to represent the victims in court collectively in the capacity of *parens patriae,* despite the clear conflict of interest presented by India owning a 22 per cent share in UCIL (Fortun, 2001).[27] This figure is shockingly low by any standard: if the victims were paid at the same rate as those affected by asbestosis in the United States in the 1970s and 1980s, the settlement would exceed $10 billion—more than Union Carbide's market value at the time (Broughton, 2005, p. 3).[28]

In the workers', activists' and scholars' version of events, the disaster was caused by the company's negligence; according to Union Carbide's discredited (Fortun, 2001) version,

[25] Estimates range widely, however, with 3,800 being the conservative government figure. Crematorium and cemetery officials in the Bhopal area, for example, claimed at least 8,000 dead (Kurzman, 1987, p. ix), and some estimates put the figure as high as 16,000, counting the 8,000 who died within weeks of the disaster and the approximately 8,000 who have died since as a direct consequence of their exposure to MIC (Eckerman, 2005).
[26] Tens of thousands are affected to this day, having had to live with their injuries without fair compensation or rehabilitation for over three decades.
[27] *Parens patriae,* Latin for 'parent of the nation', refers to a state's power to intervene on behalf of citizens unable to protect themselves. It is commonly invoked in cases of parental abuse of minors. In this case, the Indian government decided that hundreds of thousands of women, men and children could not defend themselves against Union Carbide, which prevented the victims from independently suing the company and defending themselves on their own terms. Arguably, this served the purposes of Union Carbide (and the Indian government, which was interested in minimising the fallout from the disaster in the form of a decline in foreign investment if the price Union Carbide paid was too high) rather than the purposes of the victims and those seeking justice for them.
[28] Indian environmentalist Claude Alvares, writing ten years after the disaster, concluded that 'it was apparent... that the life of an Indian citizen in Bhopal was clearly much cheaper than that of a sea otter in America', noting that as much as $40,000 had been spent on saving every sea otter affected by a recent oil spill in Alaska (Alvares, 1994, p. 143), as compared to the Rs 73,638 (approximately $2,100 at the time of Alvares' writing) paid on average for Bhopal death claims (Sarangi, 1995, p. 3272).

the cause was sabotage by a disgruntled worker.[29] UCIL never admitted responsibility for the first disaster, just as the Indian government and judiciary, the U.S. government and judiciary, and Union Carbide never admitted responsibility for the second one. Fortun concludes, 'in the independence-era dreams of Jawaharlal Nehru, a pesticide plant in Bhopal would have been a temple of the new India, representing the dynamic synergism of science, industrialisation, and socialism.[30] Fifty years after the disaster, Union Carbide's Bhopal plant continues to operate as an icon, but of a different kind' (Fortun, 2001, p. 144). I imagine that, when Amrit Gangar spoke to me on a warm Mumbai night decades after the accident about the kind of country India had become, Bhopal was very much on his mind.

It is possible to view the disaster merely as an unfortunate but isolated event on India's path toward progress. But the long list of indignities the people of Bhopal have suffered neither starts nor ends with the gas leak in December 1984; on the contrary, the 'second disaster' of utter bureaucratic failure is arguably even more shocking than the accident itself. The twin disasters are not blips; they are emblematic of long-standing institutions and ideologies that, if unchecked, have a good chance of ending the Anthropocene (and with it, humanity) in a matter of decades.

Key among the currents of history that underlie the disasters is the twin pursuit of democracy and development. In India, the tension between the two is among 'the contradictions [that] are literally constitutive of the postcolonial state. The Indian constitution is bifocal. It guarantees political democracy, not unlike the US Constitution. But it also has

[29] In his book *Bhopal: The Inside Story,* T. R. Chouhan (1994), a former UCIL worker, enumerated the many ways that UCID and its mother company, Union Carbide, failed to maintain a secure environment at the plant: through negligence, underinvestment and lack of training, and by flat out breaking industrial rules and regulations. Many of these accusations have been independently corroborated (Varma & Varma, 2005) which gave the workers' claims credibility (Fortun, 2001).

[30] Pesticides were also seen as central to the Green Revolution (Shiva, 2016), which was to raise India's agricultural productivity and liberate it from its dependence on American food imports. The idea of 'development', in other words, was seen as central to welfare of India's people but this could only happen on the back of specific technological innovations (such as fertilisers needed to support the Green Revolution made at Bhopal).

directive principles (Articles 36-51) that promise the pursuit of economic democracy' (Fortun, 2001, p. 144). Economic democracy, however, is not for everyone; as Arvind Rajagopal pointed out in his article 'And the Poor Get Gassed', not only did the 'poor' state of Madhya Pradesh and the 'poor' country of India not object to the Bhopal plant or regulate it in any way because they wanted to be included in the 'promised land of industrial progress', due to the huge redundancy of labour in India, 'killing off several thousand, and maiming a few hundred thousand more, is not something [government planners and policymakers] could object to in principle, as long as the victims are appropriately selected' (Rajagopal, 2005, pp. 23–24). While this interpretation might seem overly cynical, many examples of the government's botched and ineffective response to the disaster appear to support it. However, it is important to remember that the state and national governments were not the only ones responsible. Kim Fortun's account of activist narratives of the origins of the disaster is worth quoting at length:[31]

> *Some of the activists I worked with pushed the origins of disaster back to 1600, the year the East India Company was chartered in London, establishing how India would be related to the West—through the multinational corporate form. Some fixated on 1974, the year Union Carbide India was granted an industrial license by the government of India to manufacture as well as formulate pesticides in Bhopal—establishing the government's role in the disaster. Still others emphasized the early 1980s, when the Green Revolution in India was faltering—revealing that the promise of modern science and technology was not as straightforward as once believed.* (Fortun, 2001, pp. 139–140)

Arguably, all these interpretations are true, and to understand what happened in this disaster, we need to consider all these and other narratives as we trace the ideoscapes that enabled both

[31] Fortun's informants initially came from the ranks of the Bhopal Group for Information and Action, which acted as translators and interlocutors for the Bhopal Gas Affected Working Women's Union; over time, however, her informants came to include environmental and social justice activists from across the country (Fortun, 2001, pp. 2–3).

the violence of Bhopal and the broader slow violence enacted in the context of a postcolonial, neoliberal state.[32]

What converged in Bhopal were India's colonial past and its imagined prosperous and 'developed' future.[33] Just as Union Carbide was engaging in rewesternisation by projecting America's power and scientific superiority in India at the time of the Cold War, the Indian government was preoccupied with dewesternisation in its rush toward a prosperous future anchored in a global neoliberal system of supranational capitalism. Here was a state that appeared to be dominated by forces willing to sacrifice hundreds of thousands of citizens in order to maintain an image of a 'safe' haven for foreign investment, a state underpinned by ideoscapes of depoliticisation of the environment (and certain categories of human life) with a double root in colonialism and neoliberalism.[34]

The postcolonial Indian state is a heterogeneous entity, however (Mangla, 2015, 2017; Sutoris, 2016), and not all of its constitutive elements would subscribe to such a view. As I have shown elsewhere, in the realm of the state's educational vision, a degree of internal contestation and dialogue was palpable in the decades following Independence (Sutoris, 2018a), an argument which challenges the simplistic characterisations of the Indian state as an ideological monolith that are prevalent in policy literature (cf. Tilak, 2009).[35] This heterogeneity was obvious to me during my stay at CEE's campus in Ahmedabad during my

[32] While all three interpretations might be true, in that they were contributing factors to the disaster, they arguably do not fully explain it. All three narratives see capitalism as a purely Western import but, arguably, Bhopal also had to do with India's internal dynamics of exclusion and oppression that did not necessarily originate outside the country.

[33] The colonial past shaped the notion that the lives of people of colour are worth less than white lives, the belief in humankind's ability to master nature, including human nature, through a secular religion of science (cf. J. C. Scott, 2008), and the assertion that human progress is equivalent to 'development' in its post-Enlightenment, postindustrial revolution rendition, along with the associated paternalistic theory of state in which the citizen was to serve the country rather than the country catering to its citizens' needs (cf. S. Roy, 2007).

[34] At the press conference following a seminar on changing the investment climate in post-liberalisation India in 1991, 'reporters were reminded that the handling of the Bhopal case was evidence that India is an amiable site for foreign investment, symbolizing Indian commitment to the New World Order' (Fortun, 2001, p. 148).

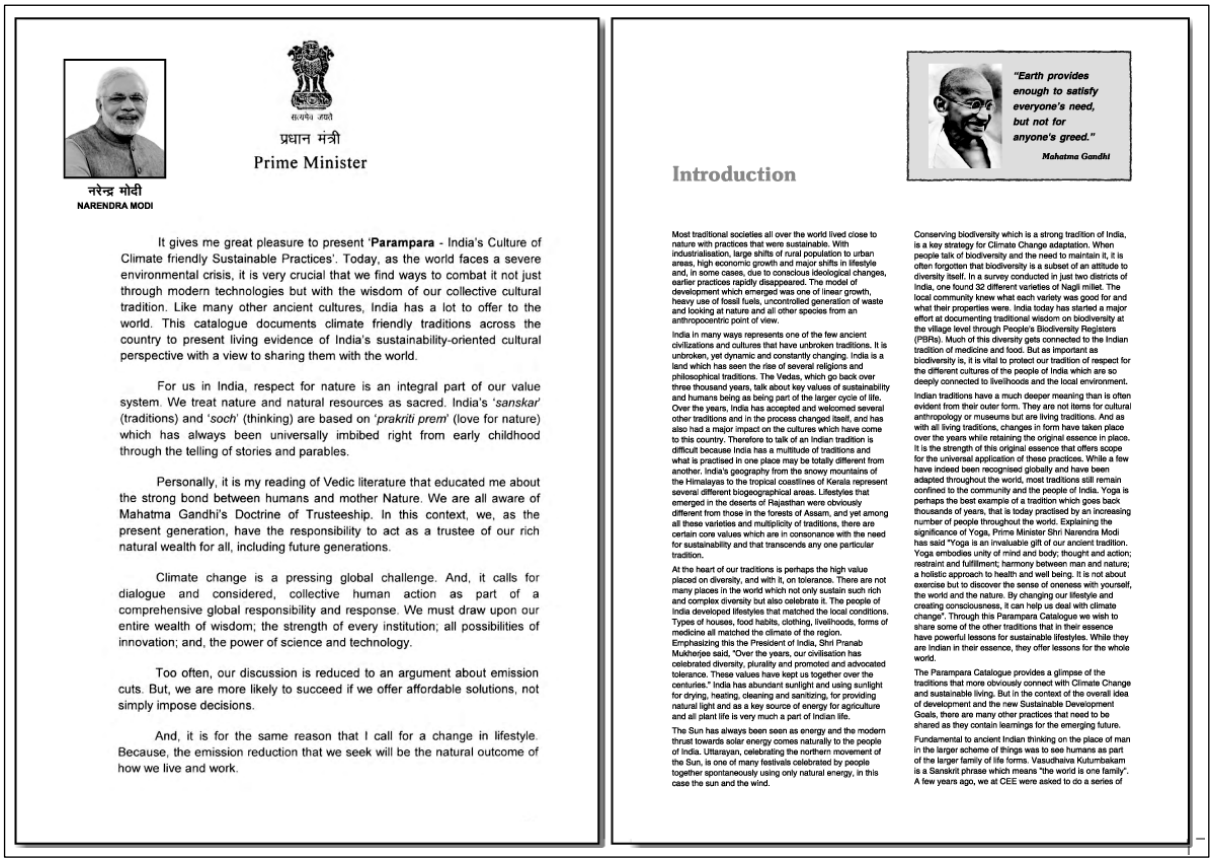
[35] The ideological contradictions at the heart of the newly born Indian state call attention to the agency of intrastate actors in shaping educational policy and delivery, as recognised in some of the most recent research into the role state bureaucrats played in educational development in India (Mangla, 2015, 2017).

initial research into handprint.[36] At one point, Kartikeya Sarabhai, the Centre's director and the leading proponent of handprint, told me the story of CEE's participation in the 1992 Earth Summit in Rio de Janeiro, one of the seminal events in the history of the international environmental movement. 'We wrote India's report, that sentence which perhaps you might have seen I think, I quote it often, which says, the challenge for developing countries like India is not how to get there but how not to, how do you avoid this strong paradigm sucking you into one type of development'. Here was a government-funded agency challenging the colonial-capitalist ideoscapes—the very ideoscapes that brought about Bhopal—in an official government document only one year after India's economic liberalisation reforms. This was rather surprising.

But CEE, too, could not escape the contradictions inherent in India's colonial matrix of power.[37] I encountered the most striking example of the organisation's subordination to the state in *Parampara* (CEE, 2015)—a coffee-table book proudly made by CEE that was India's official 'gift' to the 2015 Paris climate negotiations. It claimed to expound India's 'culture of climate-friendly sustainable practices' and suggested that, 'like many other ancient cultures, India has a lot to offer to the world' with its 'climate-friendly traditions' (Modi, 2015, p. i). These words come from the foreword, written by India's prime minister Narendra Modi. When you turn the page, you see a photograph of Gandhi, along with his famous quote, 'Earth provides enough to satisfy everyone's need, but not for anyone's greed' (Fig. 38). The contradiction could not be more jarring: a claim to Gandhi's intellectual lineage in a book

[36] In particular, it seemed to me, two agendas were competing at CEE. On the one hand, the goal of environmental sustainability arguably contradicts the Indian government's development policies, as Ramachandra Guha pointed out in the opening of this section, while government funding of the Centre's activities meant that it was simultaneously expected to promote some of these government policies. Informal conversations I had with a number of employees during my stay suggested that many of them did indeed subscribe to a notion of sustainability that called for recognising and enforcing planetary environmental boundaries, but such ideas would rarely find their way into documents produced by the Centre.

[37] And as I suggested in the first ethnographic vignette of this thesis, the depoliticising logic of handprint—as well as the depoliticising logics identified by Narain in her speech at CEE—likely has much to do with these power relations.



प्रधान मंत्री
Prime Minister

नरेन्द्र मोदी
NARENDRA MODI

It gives me great pleasure to present '**Parampara** - India's Culture of Climate friendly Sustainable Practices'. Today, as the world faces a severe environmental crisis, it is very crucial that we find ways to combat it not just through modern technologies but with the wisdom of our collective cultural tradition. Like many other ancient cultures, India has a lot to offer to the world. This catalogue documents climate friendly traditions across the country to present living evidence of India's sustainability-oriented cultural perspective with a view to sharing them with the world.

For us in India, respect for nature is an integral part of our value system. We treat nature and natural resources as sacred. India's '*sanskar*' (traditions) and '*soch*' (thinking) are based on '*prakriti prem*' (love for nature) which has always been universally imbibed right from early childhood through the telling of stories and parables.

Personally, it is my reading of Vedic literature that educated me about the strong bond between humans and mother Nature. We are all aware of Mahatma Gandhi's Doctrine of Trusteeship. In this context, we, as the present generation, have the responsibility to act as a trustee of our rich natural wealth for all, including future generations.

Climate change is a pressing global challenge. And, it calls for dialogue and considered, collective human action as part of a comprehensive global responsibility and response. We must draw upon our entire wealth of wisdom; the strength of every institution; all possibilities of innovation; and, the power of science and technology.

Too often, our discussion is reduced to an argument about emission cuts. But, we are more likely to succeed if we offer affordable solutions, not simply impose decisions.

And, it is for the same reason that I call for a change in lifestyle. Because, the emission reduction that we seek will be the natural outcome of how we live and work.

"Earth provides enough to satisfy everyone's need, but not for anyone's greed."
Mahatma Gandhi

Introduction

Most traditional societies all over the world lived close to nature with practices that were sustainable. With industrialisation, large shifts of rural population to urban areas, high economic growth and major shifts in lifestyle and, in some cases, due to conscious ideological changes, earlier practices rapidly disappeared. The model of development which emerged was one of linear growth, heavy use of fossil fuels, uncontrolled generation of waste and looking at nature and all other species from an anthropocentric point of view.

India in many ways represents one of the few ancient civilizations and cultures that have unbroken traditions. It is unbroken, yet dynamic and constantly changing. India is a land which has seen the rise of several religions and philosophical traditions. The Vedas, which go back over three thousand years, talk about key values of sustainability and humans being as being part of the larger cycle of life. Over the years, India has accepted and welcomed several other traditions and in the process changed itself, and has also had a major impact on the cultures which have come to this country. Therefore to talk of an Indian tradition is difficult because India has a multitude of traditions and what is practised in one place may be totally different from another. India's geography from the snowy mountains of the Himalayas to the tropical coastlines of Kerala represent several different biogeographical areas. Lifestyles that emerged in the deserts of Rajasthan were obviously different from those in the forests of Assam, and yet among all these varieties and multiplicity of traditions, there are certain core values which are in consonance with the need for sustainability and that transcends any one particular tradition.

At the heart of our traditions is perhaps the high value placed on diversity, and with it, on tolerance. There are not many places in the world which not only sustain such rich and complex diversity but also celebrate it. The people of India developed lifestyles that matched the local conditions. Types of houses, food habits, clothing, livelihoods, forms of medicine all matched the climate of the region. Emphasizing this the President of India, Shri Pranab Mukherjee said, "Over the years, our civilisation has celebrated diversity, plurality and promoted and advocated tolerance. These values have kept us together over the centuries." India has abundant sunlight and using sunlight for drying, heating, cleaning and sanitizing, for providing natural light and as a key source of energy for agriculture and all plant life is very much a part of Indian life.

The Sun has always been seen as energy and the modern thrust towards solar energy comes naturally to the people of India. Uttarayan, celebrating the northern movement of the Sun, is one of many festivals celebrated by people together spontaneously using only natural energy, in this case the sun and the wind.

Conserving biodiversity which is a strong tradition of India, is a key strategy for Climate Change adaptation. When people talk of biodiversity and the need to maintain it, it is often forgotten that biodiversity is a subset of an attitude to diversity itself. In a survey conducted in just two districts of India, one found 32 different varieties of Nagli millet. The local community knew what each variety was good for and what their properties were. India today has started a major effort at documenting traditional wisdom on biodiversity at the village level through People's Biodiversity Registers (PBRs). Much of this diversity gets connected to the Indian tradition of medicine and food. But as important as biodiversity is, it is vital to protect our tradition of respect for the different cultures of the people of India which are so deeply connected to livelihoods and the local environment.

Indian traditions have a much deeper meaning than is often evident from their outer form. They are not items for cultural anthropology or museums but are living traditions. And as with all living traditions, changes in form have taken place over the years while retaining the original essence in place. It is the strength of this original essence that offers scope for the universal application of these practices. While a few have indeed been recognised globally and have been adapted throughout the world, most traditions still remain confined to the community and the people of India. Yoga is perhaps the best example of a tradition which goes back thousands of years, that is today practised by an increasing number of people throughout the world. Explaining the significance of Yoga, Prime Minister Shri Narendra Modi has said "Yoga is an invaluable gift of our ancient tradition. Yoga embodies unity of mind and body; thought and action; restraint and fulfillment; harmony between man and nature; a holistic approach to health and well being. It is not about exercise but to discover the sense of oneness with yourself, the world and the nature. By changing our lifestyle and creating consciousness, it can help us deal with climate change". Through this Parampara Catalogue we wish to share some of the other traditions that in their essence have powerful lessons for sustainable lifestyles. While they are Indian in their essence, they offer lessons for the whole world.

The Parampara Catalogue provides a glimpse of the traditions that more obviously connect with Climate Change and sustainable living. But in the context of the overall idea of development and the new Sustainable Development Goals, there are many other practices that need to be shared as they contain learnings for the emerging future.

Fundamental to ancient Indian thinking on the place of man in the larger scheme of things was to see humans as part of the larger family of life forms. Vasudhaiva Kutumbakam is a Sanskrit phrase which means "the world is one family". A few years ago, we at CEE were asked to do a series of

Figure 38: The juxtaposition of Modi and Gandhi in CEE's Parampara

introduced by Modi, a politician who unabashedly championed industrial development during his time as the chief minister of Gujarat and later as India's prime minister (Komireddi, 2019).[38] Modi had abandoned his wife and his mother in his early twenties to join the 'family' of the ultra-right-wing Rashtriya Swayamsevak Sangh (RSS, a national volunteer organization) (Komireddi, 2019, p. 98);[39] this was the same RSS whose ideology led its former member Nathuram Vinayak Godse to assassinate Gandhi on 30 January 1948,[40] in the name of

[38] In my fieldnotes from this day, I wrote, 'I can't believe this appropriation of Gandhi did not seem to raise any eyebrows. It is shocking that the international community was not shocked by this!'

[39] Modi's political awakening can be traced back to his time in RSS youth camps which 'introduced volunteers to the vast pantheon of villains who had plundered and emasculated India down the ages and exhorted them to shed their Hindu impotence'; heeding this call, Modi 'wandered through India as a catechist for the Hindu nationalist cause' (Komireddi, 2019, p. 98).

[40] Many contemporary proponents of Hindutva argue that the assassination of Gandhi was an act of a rogue ex-member of RSS and that the organisation is not to blame. Such views are captured in Anand Patwardhan's film *Reason* (2018); in one of the documentary's scenes, the filmmaker enters a heated debate with participants in a political rally who make this argument and confronts them with what he sees as historical facts about RSS's involvement in the assassination plot. While there is no consensus on direct links between the organisation and the killing, a number of historians argue that the RSS, at the very least, spread an ideology that was conducive to such an act (Ramachandran, 2016).

Hindutva, or Hindu nationalism.[41] If the INC killed off Gandhi's social and economic doctrine in the 1930s, Hindu nationalism physically annihilated the man in the 1940s, yet both celebrate him as a national hero and ostensibly subscribe to his legacy. This is not a mere coincidence: it is a symptom of a state where tradition is appropriated by power, where dewesternisation meets Hindutva and where neoliberal-colonial bureaucratisation seeks to ensure that the word 'environment' is devoid of any traces of politics in an Arendtian sense.

I first encountered Bharatiya Janata Party (BJP)-style Hindu nationalism in an undergraduate class on South Asian history, where I saw Anand Patwardhan's classic documentary 'Ram ke Nam' ('In the Name of God'). The film showed, in uncensored raw detail, the party's role in the 1990 campaign to demolish the Babri Masjid mosque in Ayodhya and build a Hindu temple dedicated to Ram on its site.[42] The clash triggered waves of communal violence and the campaign succeeded: within two years of the film's release, the mosque was dismantled in less than five hours—directly in breach of a supreme court order—and historian and founding member of the subaltern collective Sumit Sarkar wrote of an 'Indian variety of fascism' (Sarkar, 1993, p. 164).

By 2002, Indian fascism had entered the political mainstream in parts of the country and led to the genocidal killing of Muslims. During the Gujarat riots which left as many as 2000 dead, Modi, the state's chief minister at the time, at a minimum turned a blind eye to the violence (Engineer, 2002).[43] His involvement got him banned from entering the United States

[41] Mawdsley (2006, p. 381) makes a helpful distinction between 'official' pronouncements and the practices fuelled by Hindutva ideologies: 'The core ideology of *Sangh Parivar* is that of *Hindutva*, which translates literally as the "transcendental essence" of "Hindu-ness", but which has acquired the meaning of "Hindu nationalism". As a concept it has changed somewhat since it was first iterated in the early-mid-20th century, and there is some variation of interpretation today within the *Sangh*. The official pronouncements of the BJP suggest a really quite inclusive philosophy—Hindutva as an accommodating agenda for modern India . . . But in the speeches of politicians and religious leaders, in ashrams and newspapers, in daily conversations, and above all in the verbal and physical attacks on Muslims, Christians, foreigners, secularists, feminists, communists and leftists, Hindutva is often aggressively communalistic, masculinist and socially conservative'.

[42] See P. S. Ghosh (2000) for the evolution of Hindu nationalism over time.

[43] There is also evidence of Hindu nationalism's interference with judicial and state inquiries into the incident, as discussed by Jaffrelot (2012).

and a number of European countries (Burke, 2012; Mann, 2014). And yet, Modi not only rose to the top, he earned respect from much of the world; on January 25, 2015, he famously hugged Barack Obama at the Delhi airport—the same Obama whose face appeared on hundreds of red-and-blue 'HOPE' stickers adorning dorm windows on the U.S. college campus where my history class watched Patwardhan's film on the Ayodhya mosque.[44] The affectionate gesture appears less out of place when we consider its symbolic dimension: these were not two men hugging but an embrace of the ideologies of American rewesternisation—U.S.-led diffusion of neoliberalism around the world and the Obama administration's 'pivot to Asia' (Shambaugh, 2013)—with Indian dewesternisation (in its colonial-capitalist-Hindutva variety).

The 2014 election in India put a lone party—Modi's RSS-affiliated BJP—in power for the first time since 1984.[45] During my fieldwork in 2016-17, while the BJP was pushing for a Hindu political, cultural and spiritual hegemony, the country seemed to be in turmoil, the spectre of communalism and the bloody memories of Partition haunting it once again (Palshikar, 2019). A local election took place in Uttarakhand during my research in Pashulok, and religious symbols on political posters (Fig. 39) were a constant reminder that India's secular democracy was at risk. As K. S. Komireddi wrote in *Malevolent Republic,* one of the first histories of Modi's India, 'Hindu rage that once manifested itself in localised violence has metastasised into a cancer of the national body politic . . . Democratic institutions have been repurposed to abet Hindu nationalism. The military has been politicised, the judiciary plunged into the most existential threat to its independence since 1975. Kashmir has never more

[44] In another twist of irony, one of the preoccupations of Indian newspapers at the time was how the health of one individual—Barack Obama—would be affected by inhaling Delhi's polluted air during his three days in India; according to scientists' calculations, it would likely shorten his life by approximately six hours (Economic Times, 2015).

[45] INC led the government following the 1991 election, but this was a minority government with the support of smaller political parties on the left.

Figure 39: An election poster near Pashulok showing Modi endorsing a local candidate

resembled a colonial possession' (Komireddi, 2019, p. 205).[46] The administration made full use of India's existing and arguably restrictive laws (Ruparelia, 2015, p. 768) and passed new ones that limited free speech, the right to assembly, freedom of movement and funding, including constraining foreign funding to NGOs and development organisations. But perhaps even more importantly, 'social vigilantism by outfits that are ideologically aligned with the BJP, and the RSS', which was 'backed up by mob violence' against journalists, academics, students or anyone else critical of the government, made itself felt with increasing frequency and magnitude (Blom Hansen, 2019, p. 19).[47] 'The political', in an Arendtian sense, is being squeezed out of the public sphere in Modi's India.

[46] As I edit this thesis in August 2019, the world is indeed witnessing India's unilateral derecognition of Kashmir's special status, followed by a major escalation of tensions with Pakistan and an international outcry.

[47] This style of government has been dubbed 'Moditva', as discussed by Mehta (2010) in the context of a legal battle between the state of Gujarat (at the time Modi served as its chief minister) and the Indian sociologist Ashish Nandy. Mehta uses this case to point to both the personality cult surrounding Modi and the associated suppression of free speech and academic freedom.

Where does all this leave the Indian state's development ideology and its alleged commitment to sustainability? *Sustainable Development and India* (Patel & Nagar, 2018), a recent volume published by Oxford University Press India, is instructive.[48] With a foreword by Modi—just like CEE's *Parampara*—it spells out a technocratic view of the future in which technology is the only way forward. It sees the Trump administration as committed to the idea of sustainable development (Patel & Nagar, 2018, p. 5), makes a point of praising Modi for touring one of Tesla's U.S. factories to observe production of the company's solar battery Powerwall (p. 179) and asserts that 'sustainability strongly revolves around intellectual property rights as an instrument of advancing innovation' (p. 5). The volume focuses a great deal on protecting patents, pointing to an underlying belief that only neoliberal capitalism, private ownership and the profit motive can resolve the existential challenges of the Anthropocene.[49] In a nutshell, the same logic that led to the environmental crisis in the first place is imagined as the way to end it. This is likely true; what remains unclear is whether such an end to the crisis would simultaneously put an end to humanity as well.

4.1.1 Flooding the country with development: Tehri Dam and the depoliticisation of environment

India's large dams are perhaps the most visible imprint of the dynamics of dewesternising development. They are, just like Bhopal, symbolic of something very different from the prosperity they were meant to deliver. The country built approximately 4,000 large dams[50]

[48] The fact that a major university press would publish some of the explicit endorsements of Modi is indicative of the climate of publishing in India under Moditva.

[49] Another account of 21st-century India puts forward a vision for 2047 (the centenary of Independence) along these lines: 'More factories will come up in India, producing smartphones, cars, pharmaceuticals, and other goods. But most new jobs will have to be created by entrepreneurs, in the digital economy, among small and niche manufacturers—more like the craftsmen of old—and especially in services. Hundreds of millions of people, by 2047, will leave behind a rural life, creating homes and lives in growing cities' (Roberts, 2017, p. 285). However, this volume also warns that environmental degradation and gender inequality are two major challenges that need to be resolved as India moves forward.

[50] Many of these have been supported by foreign countries and financed through World Bank loans; according to Duflo and Pande (2007, p. 602), 'between 1950 and 1993, India was the single largest beneficiary of World Bank lending for irrigation'.

between Independence and 2000 (Klingensmith, 2007, p. 212).[51] The resulting reservoirs displaced millions of Indians—one study found the average number of people displaced by a large dam to be 44,182 (Dias, 2002, p. 5)—many of them indigenous peoples and *dalits.*[52] What exactly was their sacrifice for? Studies have shown that the Indian state's irrigation policies have been 'beneficial to the privileged rich landed class' (S. Singh, 2002, p. 181), whereas poverty and agricultural volatility have increased in the regions surrounding the dams (Duflo & Pande, 2007). Meanwhile, the environmental destruction caused by these mega-projects has been immense: by 2002, large dams had submerged 1.5 million hectares of forest and other ecosystems in India (Raj, 2002, p. 64). 'Nothing ages worse than images of the future', Khilnani writes. 'The great dams, sluicing through forests and villages, have come to be seen as the emanations of a developmental fantasy insensitive to ecological limits and careless of turning its citizens into refugees in their own land' (Khilnani, 2012, p. 62).

Tehri Dam in the Himalayan state of Uttarakhand—which displaced villages previously inhabited by the people of Pashulok, my Indian research site (Fig. 40)—is one of India's largest dams completed in the 21st century.[53] Conceived of in 1949, under construction in 1978 and completed in 2005 (Rawat, 2013, p. 66), this 260.5 metre high rock-fill dam, with a reservoir

[51] As Ishizaka (2006, p. 79) points out, 'construction of large-scale dams decreased considerably after the 1980s'. Based on Singh's (2002) and Khagram's (2004) work, Ishizaka (2006, p. 79) identifies three key reasons for this: 'Firstly, the problems of large-scale dams (for example, low level of cost-benefit ratio, adverse influence upon the environment, problem of evacuation, and so on) came to be widely known. Secondly, many anti dam movements started to join forces with each other. Thirdly, notions of environmental protection and preservation of human rights (especially of tribes) came to have much more power in the process of policy making in India".

[52] Prior to resettlement, oustees often live in tribal communities that do not have a 'highly stratified social structure' (S. Singh, 2002, p. 183) which makes it difficult for them to adapt to a cash-based, capitalist, casteist society after being resettled. In many cases, the oustees are ignored altogether 'and left to fend for themselves', such as in the case of the Bhakra Nangal dam where, according to one study, only 12m000 out of 36m000 were rehabilitated (S. Singh, 2002, p. 195).

[53] Uttarakhand (formerly known as Uttaranchal) is one of India's youngest states, established in 2000. According to Mawdsley (1999, p. 105), the movement for an independent state was rooted in a narrative of 'internal colonialism—that the hill region's resources were being exploited by the rest of the State without adequate recompense or balanced development in return'. Indicative research in rural areas prior to the state's formation, however, pointed to less-than-fervent support for statehood: 'In April and May 1994 extensive interviews were conducted in four villages in Tehri Garhwal, revealing that 40 percent of respondents were indifferent to the idea of a separate Uttaranchal. Of the rest, 58 percent were generally in favour, but very few expressed fervent support for the idea; and only 2 percent were positively opposed to the idea' (Mawdsley, 1999, p. 104).

of 25 square kilometres (Bisht, 2009, p. 302), has displaced as many as 100,000 people (Newton, 2008), according to some estimates.

Figure 40: The state of Uttarakhand and its constituent districts[54]

The people of this region, known as *paharis* (of the hills), had already been disadvantaged in several ways before the dam was built. According to Rana et al. (2007, p. 352), 'people of Uttarakhand are combating various forms of natural calamities. Their resources are fast dwindling; exodus is common phenomena [sic] as survival has become exceedingly difficult. The recurrent incidences of flash floods and landslides create enormous hardship to the local people. The scarcity of biomass (fuel, wood, fodder, etc.) is being observed all over the state, water scarcity in a region becomes so alarming that people have to walk for miles for drinking water'. While more than 70 per cent of the population in this area is upper caste (Brahmins and Rajputs), this does not necessarily translate into wealth. According to census data, the population of this region is 82 per cent rural and, compared to the plains of Uttar Pradesh, 'transport and communications [are] very poor'. There are 'relatively few industrial units' (Mawdsley, 1999, p. 103). According to Mawdsley (1999), it

[54] Reproduced and amended from HaridwarOnline (n.d.).

has been estimated that between 27 per cent and 74 per cent of working males are absent from these hill villages at any given time. The dominant languages are Garhwali and Kumaoni, and Hinduism is the main religion, 'although it owes much to the local traditions of ghosts and spirits' (Mawdsley, 1999, p. 103). Many Indians would consider this an underdeveloped area.

In India, victims of development tend to come from such regions and are often 'given a very raw deal in terms of compensation for their land and livelihood by the state agencies' (S. Singh, 2002, p. 181). Tehri Dam was no exception; as Nachowitz points out, despite the government's stated goals of relocating families and providing fair compensation for their submerged land, 'researchers have found that this is not the case. Entire families have been split apart and deprived of their only means of economic support. The cultural survival of these "backward classes", who have lived and survived without modern technology or electricity for centuries,[55] has been ignored' (Nachowitz, 1988, p. 9).[56] The landless—*harijans* and other artisanal groups—often have had no option but to emigrate out of the resettled villages (Rawat, 2013, p. 77). Peasants who were relocated to the lowland plains 'can no longer farm their most successful crops including jhangora, beans, apples, and other high altitude fruits' (Newton, 2008, p. 28). The urban population was moved to a site topographically very different from their home; Old Tehri was located 1,115 feet above sea level, while the resettlement colony of

[55] According to Bisht, 'the rural population displaced by the Tehri Dam is mainly Hindu and is organised on the basis of the caste system. The patrilineal, patrilocal joint family is the functional unit and the basis of the organisation of property and land . . . Prior to displacement, village communities were mainly subsistence farming communities' (Bisht, 2009, p. 304).

[56] Another group notably affected by resettlement was women. Commenting on the pre-resettlement social conditions for women, Bisht noted that 'because the local topography could not support a large population at one particular place, villages were small, sparsely populated and scattered. The compact nature of each village meant that everyone knew everyone else and this provided a sense of security [for the women]' (Bisht, 2009, p. 307). After resettlement, this sense of security was compromised. One study of women found that as many as 54.16 per cent of respondents reported that, 'though they have been living in this area for the past 20-30 years, they still feel insecure', and 87.50 per cent complained about the separation from their close relatives due to resettlement (Rawat, 2012, p. 148). Furthermore, since women previously had been the primary cultivators in the region, as men would migrate down to the plains for work (Asthana, 2018), they participated in decision-making and had a degree of social autonomy not seen in surrounding communities in which the *parda* (veil) system was practised (Bisht, 2009, p. 314). Displacement meant, however, that men would take over cultivation, leaving women constrained to indoor activities, thus limiting their economic freedom and social autonomy. See Asthana (2018) for the most recent analysis of the gendered impact of resettlement.

New Tehri was built at 5,085 feet (Newton, 2008, p. 23). The human costs and community impact of the resettlement have been described by Chipko movement leader Sunderlal Bahuguna as 'the end of a civilization'[57] (Newton, 2008, p. 31).[58]

Bahuguna's involvement dates back to the Uttarakshi earthquake of October 20, 1991, which brought concerns about the safety of the dam into sharp relief, given its location on a geological fault line—an incident could lead to the flooding of entire cities—as discussed in T. Shivaji Rao's book *Tehri Dam Is a Timebomb* (1992).[59] Indeed, opposition to the project was fierce. In 1985, the *Tehri Bandh Virodhi Sangharsh Samiti* (TBVSS; Tehri Dam Opposing Struggle Committee) filed a petition with the supreme court against the state of Uttar Pradesh, arguing that the dam was 'technically infeasible, geologically a blunder, economically unsound and environmentally disastrous. It is not a project of development but a scheme for destruction . . . a criminal act and an unpardonable ecological sin' (Verghese, 1994, p. 82).

These vigorous protests which lasted for decades provided the historical backdrop for my fieldwork in Pashulok. Although I read volumes on the struggle and other aspects of the local context, visiting the site for the first time was bizarre. Located on the fringes of

[57] The Chipko's 'protests gained wider audiences through simple, populist narratives that pitted peasants against the state and markets, but glossed over the heterogeneity of classes, interests, and constituencies within the movement. This skilled interweaving of state discourse and populist rhetoric made Chipko the unquestioned icon of grassroots environmentalism in India and international environmental circles' (Rangan, 2006, p. 348). As a result of these limitations, Chipko's actual successes do not necessarily live up to the enthusiasm with which journalists, academics and environmentalists spoke and wrote of the movement at the time. See Dogra (1993) for further detail. Sunderlal Bahuguna has been 'diversely acclaimed as the father of the Chipko movement, a freedom fighter, a true disciple of Gandhi and Vinoba Bhave, an environmental thinker and writer, a gentle crusader, an unobstructive messiah, a rishi, the face of TBVSS, convenor of Himalaya Bachao Andolan [Children of Narmada Movement]' (M. Sharma, 2009, p. 36). I met Bahuguna and his wife, fellow activist leader Vimla Bahuguna, in their house in Dehradun during my fieldwork in Pashulok in 2017. While we could not engage in a detailed discussion about the anti-Tehri Dam movement, due to the Bahugunas' advanced age, their charisma and unwavering commitment to protecting the natural environment of the Garhwal Himalayas shone through their eyes as they talked to me about the future challenges they foresee for the region. See James (2013, pp. 171–186) for an overview of the Bahugunas' struggle against Tehri Dam.

[58] He claims this became clearer as time went by: 'As the destructive aspects of this project became more visible, the only argument advanced to continue it was that too much expenditure had been incurred upon it. How and on what these expenditures were incurred is a subject of a detailed and impartial enquiry. One of the glaring examples is the recent construction of air-conditioned houses for Russian workers at the cost of forty million rupees in the submergence area' (Bahuguna, 2009, p. 94).

[59] Following the earthquake, Bahuguna went on an indefinite fast, which led the Indian government to order a review of the project, ultimately concluding the dam design was safe (Verghese, 1994, p. 85).

Figure 41: The distant world of Tapovan

Rishikesh—a pilgrimage site and a hub for (aspiring) yogis, seekers of truth and tourists—Pashulok's peri-urban landscape of houses surrounded by fields could hardly be more different from the photographs of Rishikesh in tourist guides (Fig. 41). During my fieldwork, I stayed in Tapovan, the touristy part of the city, eating in Italian restaurants and encountering Westerners looking for 'truth' in the East or following in the footsteps of their rock heroes by visiting the ashram where the Beatles stayed in 1968.[60]

Every morning I took an auto-rickshaw to the main market, where I transferred to another vehicle headed south. When asked where I was going, I would yell 'To Seema Dental College', trying to out-shout the noise of the busy market, referring to the only nearby landmark that the drivers recognised. Few seemed to have heard of Pashulok, this expansive yet somehow invisible stretch of land outside the 'developed city'. After reaching the college at the 'edge of civilisation' I continued southward on foot. I noticed how spacious yet seemingly bleak the

[60] Multiple books have been written about the Beatles' time in Rishikesh, for example, by Saltzman (2000).

Figure 42: Unpaved streets, trash and animal grazing in Pashulok

area was (Fig. 42) compared to the flashy, densely populated prosperous Tapovan. I also noticed that not a single restaurant offered what I considered safe food and that almost no one spoke English here. My morning commute from Tapovan to Pashulok was a journey outside my comfort zone.

Many of the people whose villages were submerged by Tehri Dam found living conditions in Pashulok far from merely uncomfortable; they were an existential threat. One interlocutor after another described to me how inhospitable the area was when they were resettled here, lacking roads, electricity, irrigation or even plots of land suitable for building a house. The name Pashulok—composed of *pashu,* the Hindi word for 'animal', and *lok,* the word for 'place'—referred to the land's historical use as grazing grounds for cattle.[61] As I

[61] According to Rakesh, the land was previously owned by Mirabehn, a British woman who moved to India in order to devote her life to advancing Gandhi's principles and India's independence struggle. She later donated the land to local people, who used it for animal grazing until it was converted into a rehabilitation site for Tehri Dam oustees.

listened to my interlocutors while remembering what I had read about India's grossly inadequate resettlement schemes, I could not help but think that the name was only appropriate, as the government treated the resettled villagers like animals rather than fellow human beings.

India's development mega-projects cause 'pain of displacement [that is] is usually the culmination of years, sometimes decades of waiting, hearing rumours, receiving threats' (Raj, 2002, p. 65). This was true of people in Pashulok, who told me they had lived in fear for decades. One of my interlocutors told me there were whispers about a dam in the Tehri area as early as 1962, and the official announcement came in 1965. Whenever I asked about precise numbers or dates of displacement, all my interviewees pointed me to Abhijit, a retired school principal, poet and scholar who seemed to be widely respected. It took me weeks to get an appointment with him. When I finally arrived at his humble white house on the edge of Pashulok, we sat in plastic chairs and drank *chiya* that tasted like pure sugar. As we sat sweating in the afternoon sun, Abhijit often scratched his chin as he pondered my questions. 'There were many villages that were affected, but from our village of Serai 1,162 families came here', he told me. This amounted to an approximate total of 7,000 people, of which 2,000 (170 families) were from scheduled castes. 'And in that about 1.5 lakh [1,500] are people who lost everything and the rest are those who either lost their home, or their farmland'.

While he stated these numbers in a sombre voice, it was only when we spoke about culture change that I detected an undertone of sadness. 'Our festivals, now they have reduced to just sharing sweets amongst the relatives. But there [in Tehri] we had relatives coming in from far away and we used to decorate and light up the entire village. We would make a wheel

Figure 43: A Hindu temple in Pashulok

out of the peels and the entire village would come together to rotate it and then we would have programs of dancing and singing'. By now Abhijit was gazing into the distance, and I thought he was weeping. I remembered Pashulok's temples (Fig. 43), which were well maintained but seemed somehow sterile, devoid of decoration and disconnected from the kinds of rituals and practices Abhijit had spoken about. 'The situation here is like having your feet in two boats: the old things are forgotten, and we are struggling to adapt to the new life . . . There we all lived like one family . . . and were aware of the happiness and sadness in each other's lives'. While in Pashulok, I did not encounter any community events and the state of the community hall—broken windows, peeling paint, layers of dirt and debris on the ground (Fig. 44)—mirrored Abhijit's comments. I wondered if this scene of desolation reflected the country's

apathetic democratic regime. Why did seemingly so few people elsewhere in India care about the fate of these oustees?

Figure 44: Shadows and light inside Pashulok's community hall

Perhaps due to a lack of social support outside the family, many of the residents of Pashulok I spoke to feared for their children's future. Another interlocutor, Nakul, explained this fear to me, pointing out that, back in their now submerged villages, 'even if we didn't get a job, we had the backup option of farming. But here if we don't get a good education or a job, we will be on the streets'. Thus, the children's future was going to be different and not necessarily in a positive way. 'Here, a child who is born in the present time, when he grows up, he will automatically be buried under worries that if I don't become successful, what will I do in the future'? Nakul told me that his greatest hope for his children was to get a government job which provided financial security. The community's backup option of farming had evolved into a desire for government employment. The irony was palpable: this was, after all, the very

government that had flooded their villages with the holy water of the Ganges and took away the safety of old.

But I encountered an even greater paradox during my time in Pashulok. Trina, one of the women I interviewed, whose calloused hands spoke of decades of working in the field, spent almost two hours enumerating all the injustices of resettlement and reminiscing about the 'old' way of life that was lost—only to then pronounce loudly as she looked directly at me, 'We have sacrificed everything including our land, our homes. And in return, we haven't gotten anything, yet we are satisfied that we have done it for the country. I love my India, I love my Garhwali'. I wondered whether such patriotism (or perhaps nationalism?) in the face of grave loss was a present-day substitute for the militant authoritarianism of colonial rule that had allowed the Indian government to get away with its project of rewesternisation without much resistance. But the thought was short-lived, for it was getting dark and I needed to catch a ride back to the safety of Tapovan.

4.2 The origins and futures of South Africa's environmental apartheid

The practice of ethnography has undergone fundamental changes over the last century. When Bronisław Malinowski wrote *Argonauts in the Western Pacific* (1922), he relied on detailed observations he made of the Trobriand people in Kiriwana islands while immersed in their way of life, isolated from the rest of the world. In many ways, my research in Durban was the opposite: by listening to radio news every day while driving to my research site, attending seminars and lectures as a scholar affiliated with University of KwaZulu Natal, and having long chats with journalists, academics and artists in city cafes, I was learning as much about national politics, the contemporary art scene, and the social and cultural history of South Africa as I was about the microcosm of Wentworth. At the time of my fieldwork in 2016-18, South Africa was a happening place, with something akin to a political revolution unfolding in real

time. It was the country of the Rhodes Must Fall and Fees Must Fall movements, countless protests over service delivery and increasing hostility toward its president.[62] Wentworth—unlike the peripheral town of Pashulok—was where history lived, a place whose past was shaped by the likes of Steve Biko and Nelson Mandela, a city at the heart of President Zuma's support base in his home province of KwaZulu Natal.[63] This space was so politicised that I wondered whether living in the Balkans, 'the powder keg of Europe' (Paxton, 2002), in the 1910s on the brink of World War I had felt similar.[64] Yet, both my pilot study of handprint in South African schools and my fieldwork findings in Wentworth (discussed in the next chapter) pointed to patterns of depoliticisation of the environment that were similar to the Indian case. Clearly, political tension in a society is not necessarily a predictor of (de)politicisation of the environment. To understand why certain issues (for instance, land ownership[65]) became politicised in the 2010s while others (pollution) remained—at least as far as the education system was concerned—neutral, it is necessary to trace the historical origins of South Africa's foundational contradictions and tensions.

[62] As Chikane (2018) points out, even though South Africa's president announced a zero per cent increase in student fees on October 21, 2015, this did not put an end to the struggle. 'Eventually, #FeesMustFall 2015 ended, but the search for economic freedom did not' (Chikane, 2018, p. 192).

[63] Chari (2005, p. 15) provides a detailed account of this apartheid-era activist history: 'Steve Biko was once resident at the Alan Taylor Residence [in Wentworth], black student housing for medical students at the University of Natal. Biko had drawn a wide group of young people to transform Alan Taylor into a hub of political activity in the early 1970s, but its connections were primarily into the city centre and, subsequently, to Indian youth from the township of Merebank. It was only after the assassination of Steve Biko and the suppression of Black Consciousness, and after a period of quiet in the late 1970s that Alan Taylor would become a hotbed of activity again in the early 1980s. This time, an important MK cell would emerge through the activism or a racially mixed group of doctors. This cell is not often remembered of as an element of Wentworth's activist past, because it has been overshadowed by the most spectacular product of Wentworth: the MK cell of Robert McBride and Greta Apelgren, the media spectacle of late apartheid called "the McGoo Bombers." VJ, the only member of both cells, pressed to me that the Alan Taylor cell was made up of people from elsewhere with a stronger intellectual scene, and a penchant for staying up talking over red wine'. Nelson Mandela's connection to activism in Wentworth is explained in Chapter 6.

[64] The situation in the country in recent years has led Julian Brown (2015) to call South Africa a 'country of protest' and refer to its people as 'insurgent citizens'. In his view, which resonates with my findings, 'these small insurgencies might be instigated by a recognition of the gap between the lived realities of inequality and the messianic expectations of the immediate past—by the gap between contemporary reality, and the utopian vision of social and economic redress that thrived in an earlier [post-apartheid] moment' (p. 149).

[65] Struggles over land have led to a number of farmers' murders. Steinberg's (2015) account of one such case in KwaZulu-Natal exposes just how polarising this issue can be in the context of South Africa's apartheid history.

Such an effort inevitably involves the historical legacies of apartheid, South Africa's deliberate and systemic racial segregation that existed from 1948 to 1994, an era marked by the political, social and economic discrimination of non-white South Africans, state-sponsored violence, surveillance and widespread repression of civil liberties. While contemplating how to write about this dark page of human history, all I could think of was a quote from Arendt's *Eichmann in Jerusalem*. Summarizing the judges' ruling in the Eichmann case, Arendt wrote that 'sufferings on so gigantic a scale [as those created by the Holocaust] were "beyond human understanding", a matter for "great authors and poets"' (Arendt, 2006, p. 193).[66] Apartheid, too, is in the category of crimes against humanity rather than against individuals. Of the extensive literature I have read on this period, four lines written by the exiled coloured poet Arthur Nortje in 1963 speak loudest to me. They seem to echo the emptiness and oblivion at the core of Anthropocenic slow violence—or perhaps the seeming unintentionality with which it is executed.

Evil assumes the guise of emptiness:
the executioner cut off from his axe-wielding hand
eyeing the gallows from behind glass barrier.
This is glassy segregation.[67]

A different kind of 'glassy segregation' characterised my fieldwork. After my colleagues at UKZN warned me of the violence that goes on in 'Wenties', as locals call the neighbourhood, I spent a great deal of time looking at Wentworth from behind the glass of car windows. This coloured township in South Durban was created in the early 1960s by the apartheid government, a direct result of the Group Areas Act which segregated 'white', 'black', 'Indian' and 'coloured' populations into separate areas.[68] Located on the fenceline of Engen—

[66] Arendt here quotes directly from one of the judges in the Eichmann case.
[67] Excerpted from Arthur Nortje's (Nortje, 2000, p. 37) poem, 'Evil Assumes the Guise of Emptiness'.
[68] As a consequence of the Act, more than half a million coloured people were forcibly relocated to residential and sometimes business areas, mostly on the periphery of cities and towns (Adhikari, 2005, p. 4). While other pieces of legislation—including the Population Registration Act of 1950, the Prohibition of Mixed Marriages Act

the oldest South African oil refinery, built in 1954—Wentworth is notorious for drugs and gang crime. I thought that, while Malinowski may not have been exposed to the macro-level context of his sites while performing ethnography, his access to his research subjects was far less constrained.[69]

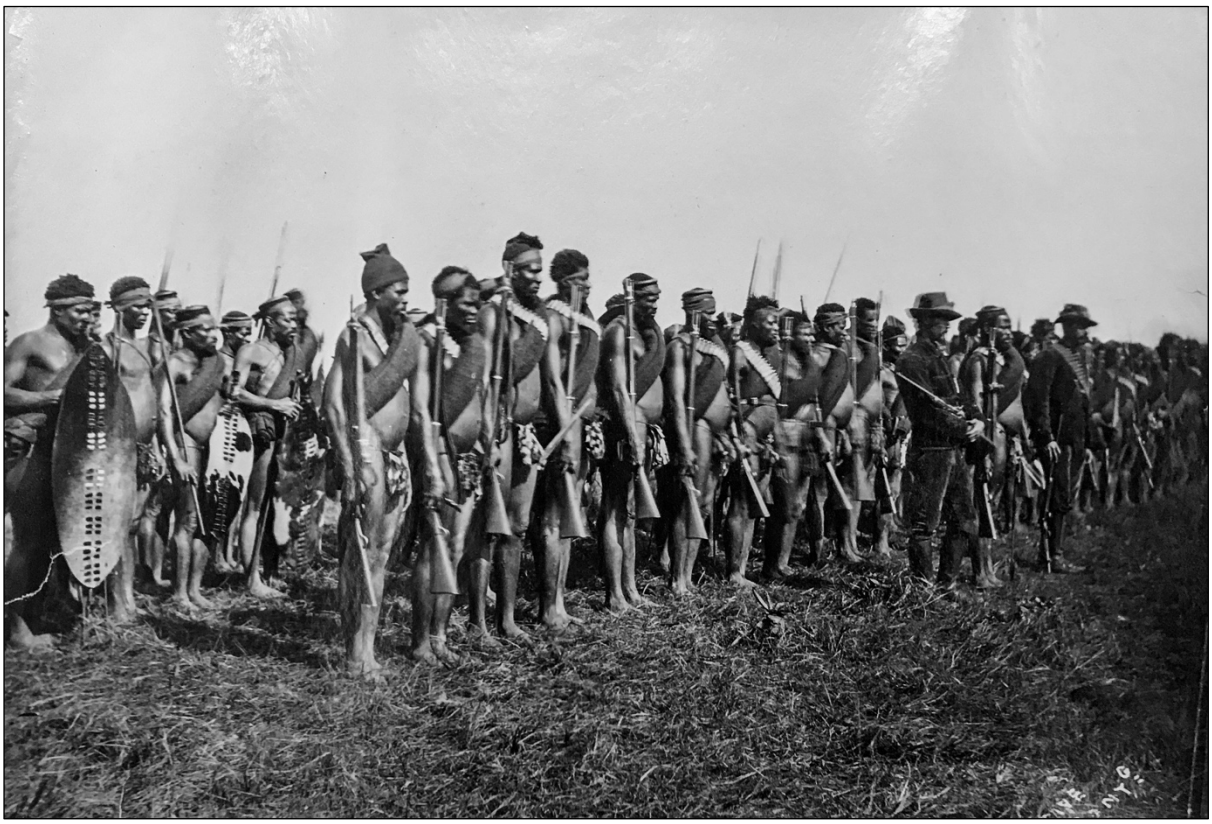


Figure 45: 'Natal Zulu Contingent [on parade]', 1879, photograph by J. R. Mee[70]

The Group Areas Act was the culmination of centuries of racial tension and imperialism in southern Africa. In what is now the province of KwaZulu Natal, the British took over the Zulu Kingdom in the brief Anglo-Zulu War of 1879, establishing white political, economic and social dominance in this part of South Africa (Thompson, 2014). Looking at a photograph entitled 'Natal Zulu Contingent [on parade]' (Fig. 45) in the British Library, I could not help

of 1949, the Immorality Amendment Act of 1950 and the Separate Amenities Act of 1953—also severely constrained coloured people's civil rights, the Group Areas Act was likely the most hated piece of legislation, because 'property owners were meagerly compensated, long-standing communities were broken up, and alternative accommodation was inadequate' (2005, p. 4).

[69] Arguably, it has become more important for anthropologists to pay attention to the macro-level of context in the recent decades with the advent of accelerated globalisation and the worldwide influence of transnational ideologies such as neoliberalism.

[70] Photo 154(73), British Library, part of the Photograph album of Lieut Col C. L. Harvey, Wiltshire Regiment and Bengal Staff Corps.

but see the rigid arrangement of soldiers in traditional costume as a statement not on British military supremacy but on the cultural 'superiority' of the Occident. In the conquest of Natal, racism went hand in hand with Orientalism.

In Durban, the metropole of the province, city planning and forced removals reflected both racist ideologies and capitalist logics of successive political regimes (Bickford-Smith, 2016, p. 138). Dianne Scott, perhaps South Africa's primary scholarly authority on South Durban, told me as we spoke on an autumn afternoon in her cosy office inside an ivy-covered colonial-era building at the University of Cape Town:[71] 'My understanding is that—and I read all the old mayors' minutes and all the documents right from 1920s—is that the idea was to create this industrial zone in the South'. To make this possible, groups of non-white people were located in the vicinity of industry to provide a 'reservoir of labour' as part of fashioning a 'modernist industrial landscape' (D. Scott, 2003a). The racist ideology originated in the colonial period and lasted through the rest of the 20th century. 'So you have got the colonial city, the segregated city and then from 1948 the apartheid city', Dianne told me. Durban's racial segregation dates back to the British Colony of Natal (1843-1910), through to the Union of South Africa (Republic of South Africa after 1961) and through the apartheid regime. Indeed, Durban's segregation, rooted in the marriage of imperialism and racism with capitalism, became the blueprint for apartheid city planning across the country, including Cape Town and Johannesburg (Bickford-Smith, 2016, p. 139).[72]

These are the same double currents of colonialism and capitalism India encountered during and after the British rule, although there are important differences. European

[71] Scott's PhD dissertation (1994) is an important source of historical knowledge about South Durban, as are many of her subsequent publications (Barnett & Scott, 2007a, 2007b; Brooks, Sutherland, Scott, & Guy, 2010; D. Scott, 2003a, 2003b; D. Scott & Barnett, 2009; D. Scott & Oelofse, 2005; D. Scott, Oelofse, & Guy, 2002).

[72] As Dianne Scott pointed out to me in her interview, the labour reserve of South Durban supported the rise of industrial activity around the Duban port in the early decades of the 20th century. At the same time, the perception of people of colour as racially inferior, disposable workers whose health did not matter conveniently allowed for forcibly moving them to South Durban in order to provide cheap labour to fuel the engine of development.

colonisation in South Africa dates back to Dutch Afrikaner settlement of the Cape in 1652, with the British taking over the Cape Colony in 1895 to secure their trading interests in India and East Asia (Trapido, 2011, p. 67).[73] Britain's influence increased after it won the Boer War against the Afrikaner Transvaal Republic and the Orange Free State in 1902. While British propaganda at the time claimed that the British took a more sympathetic view of non-white South Africans than the Afrikaners (Thompson, 2014, p. 144), their victory in the Boer War hardly changed the lot of the country's marginalised majority; in fact it often made it worse.[74] This statement from Maurice Evans, a British politician (and amateur botanist) who lived in Durban, is telling:

> *I feel we have a fine race of people given into our charge, a race who, while rapidly changing, are not degenerate—a people who under right guidance are capable of much, and who, under firm, considerate and wise rule are easily governed . . . Above all, our duty is, . . . as the ruling race to think for and of this people, and lead them along the right lines of development. (Evans, 1906, p. 8)*[75]

Even if the British did not openly advocate violence against the non-white populations, they saw them as decidedly inferior and in need of being 'led' and 'thought for'. Steve Biko, the founding figure of the Black Consciousness movement,[76] who once lived in Wentworth,[77]

[73] As Trapido (2011) points out, this military effort involved not only securing harbours necessary for trade but also inland agricultural land to supply them. The British thus sought to control large swathes of territory in order to preserve their economic interests.

[74] For example, Britain pursued its 'scorched earth' policy not only against the Afrikaners but also against black South Africans; as many as 116,000 were moved to concentration camps, of which 14,000 died (Thompson, 2014, p. 143). It also used black South Africans for military purposes, with an estimated 10,000-30,000 fighting with the British Army (2014, p. 143). After the war, Milner introduced measures restricting the black Africans' movement, lowering their wages and generally making life harsher for them (Thompson, 2014, p. 144).

[75] An example of the ways in which these paternalistic (as well as Christian missionary) ideas affected the thinking of educationalists of the time can be found in C. T. Loram's (1917) *The Education of the South African Native*.

[76] The goals of the movement can be gleaned from those Biko (1979b, 1979a) expressed in public prior to his untimely death. In his analysis of the movement's political strategy, Hirshmann (1990, p. 22) argues that, 'given the predicaments that faced black political leaders in the 1960s, and the cruel responses that their opposition consistently drew from Pretoria, to have confronted some of these issues head-on and in public would have been self-destructive. In other words, the early stress on the psychological, the cultural, and the historical, and on mobilisation and conscientisation, made tactical sense and, more importantly, worked'.

[77] And who was politically active here during his time as a medical student at Alan Taylor residence; see quotation from Chari's (2005) historical analysis above.

eloquently summarised the effects of the British-Afrikaner racial discrimination on Black South Africans in his court testimony in 1976 at the height of apartheid:[78]

> *I think the Black man is subjected to two forces in this country. He is first of all oppressed by an external world through institutionalized machinery, through laws that restrict him from doing certain things, through heavy work conditions, through poor pay, through very difficult living conditions, through poor education—these are all external to him—and secondly, and this we regard as the most important, the Black man in himself has developed a certain state of alienation. He rejects himself, precisely because he attaches the meaning White to all that is good. (Biko, 1979b, p. 19)*

A year later, Biko was tortured and brutally murdered at the hands of the apartheid regime,[79] and the situation in the country led historian R. W. Johnson (1977) to title his book *How Long Will South Africa Survive?* The answer—about 17 years.[80]

While 1994, the year Nelson Mandela was elected the first president of a democratic South Africa, was a year of hope for many, it did not end the colonial-capitalist currents underpinning the country's politics. South Africa set itself on a path of dewesternisation rather than decolonisation. Although Mandela's achievement of keeping the country together in the aftermath of apartheid was undeniable,[81] his government also oversaw economic reforms that aligned with the globally dominant neoliberal paradigm and associated 'trickle-down'

[78] Biko delivered this statement as a defence witness at the trial of Sathasivan Cooper and eight others in Pretoria in May 1976.
[79] Donald Woods, a South African journalist, would write a book about Biko's ordeal that, thanks to its publication in Europe, helped to draw the world's attention to the plight of anti-apartheid activists in South Africa (Woods, 1979).
[80] But in 2016, four decades after the release of the book, the crisis of governance under ANC's Jacob Zuma prompted R. W. Johnson (R. W. Johnson, 2016) to write a follow-up titled *How Long Will South Africa Survive? The Looming Crisis* in which he once again raised the question of fundamental unsustainability of the country's political regime.
[81] In Broun's (2012, p. 166) assessment, 'as president of the Republic, he healed the wide racial divisions to an extent that few had thought possible. He worked not only to assure that the black people of the nation would achieve their political rights, but also—as much as was possible given the history of the country—to convince the white population that they could maintain much of the way of life to which they had become accustomed. He saw South Africa as a "rainbow nation" and strove to make that image a reality'.

economics,[82] which failed to relieve the poverty of a vast majority of South Africans.[83] Historians argue about the causes: while some, notably Patrick Bond (2000) in his book *Talk Left, Walk Right*, see this as ANC hypocrisy, others, such as Hirsch (2005) in *Season of Hope,* argue that the policy was consistent with ANC's pre-1994 promises and reflected a balancing act between the need to redistribute wealth and to grow the economy.[84] Whatever the reason, the economic policies of the Mandela (1994-99) and Mbeki (1999-2008) administrations left many dissatisfied and, just as Amrit Gangar did the 'unthinkable' and criticised Nehru, University of Cape Town (UCT) students behind the Rhodes Must Fall movement questioned Mandela's legacy. As activist Rekgotsofetse Chikane wrote,

> *We, as 'born frees', had begun to question the role of Nelson Mandela and consider whether he was complicit in the way our country developed after the fall of apartheid. . . . Our issue was not with the man himself, but the role his legacy played in stifling tough conversations about race. A legacy that we believed was predicated on a need to sell the black majority short during the negotiations to appease the white minority in the country. (Chikane, 2018, p. 90)*

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[82] Bond and Hallowes (2002, p. 28) argue that 'neoliberal discourses emerged in South Africa just as they achieved hegemony in international environmental management. To illustrate, the United Nations Panel on Water declared in 1998 that "water should be provided free of cost". The same principle was applied in South Africa in 1994, when the minimum price of water was set at "marginal cost"—i.e., the operating and maintenance expenses associated with covering the next unit of water's production cost'.

[83] Not all impacts of globalisation are negative, however. Cock and Fig (2001) have, for example, pointed to the emergence of a global civil society that helped 'regalvanise environmental and developmental movements in contemporary South Africa' (p. 15).

[84] Among the key arguments of this book is that South Africa at this time was heavily dependent on foreign investment and export for sustaining its economy which meant the government needed to ensure the country would be seen as an attractive destination for foreign investment. Dependent on foreign investment and export—hence the need to make SA an attractive environment for SA. In problematising this perspective, Freund (2010, p. 7) has sought to put 'into a somewhat new light much of the critical literature on the African National Congress [governments under Mandela and Mbeki, . . . notably the often very powerful writing of Patrick Bond and Hein Marais . . . The chief weakness of this thrust of thinking in my view, apart from an idealisation of what the ANC was like before 1994, lies in a tendency to encourage conspiracy theories of subversion. My interest is to turn away from superficial, if by no means irrelevant, critique which sees the limitations of ANC efforts at structural transformation in terms of some kind of conspiracy or skulduggery on the part of white masterminds of evil, i.e. the Washington Consensus of the International Monetary Fund and the World Bank and its multiple allies, and return to thinking about the classic model of South African development that Wolpe, Martin Legassick and others formulated and still others have pertinently elaborated'. Wolpe's (1972) analysis suggests that, in order to prop up the apartheid regime, the South African government needed to create Bantustans to keep black people from the cities. This is linked to the idea of 'dualism' or a 'second economy', which was characterised by a 'large world of poverty, exclusion and humiliation which remains the lot of most, if far from all, black people' (Freund, 2010, p. 4). This strand of scholarship, in other words, traces the economic divide to apartheid-era policies rather than the neoliberalism of the 1990s and beyond.

The UCT students—and others that include many of my interlocutors in Wentworth—had a point. In the 1990s, more than one million jobs (almost 20% of the entire workforce) were lost, leading to unprecedented levels of unemployment (Bond & Hallowes, 2002, p. 44). Out of 40,000 cases of land restitution, fewer than 30 were solved under the Mandela administration (Bond & Hallowes, 2002, p. 40).[85] Social assistance programs, education, health, labour laws and regulation of the business environment 'all show marked continuities between the late apartheid and the post-apartheid eras, as did environmental management practices.[[86]] Public policies were reformed more than transformed' (Seekings & Nattrass, 2015, pp. 257–258). At the same time, the distribution of water, a scarce resource in South Africa, across the country's population 'is even more unequal, measured in class, race and gender terms, than the distribution of income' (Bond & Hallowes, 2002, p. 35). In 1999, the Truth and Reconciliation Commission urged the government to 'accelerate the closing of the intolerable gap between the advantaged and disadvantaged by, among other things, giving even more urgent attention to the transformation of education . . . The recognition and protection of socio-economic rights are crucial to the development and the sustaining of a culture of respect for human rights' (Boraine, 2000, p. 357). Arguably, in their efforts to dewesternise South Africa, the Mandela and Mbeki administrations failed to challenge the long-standing currents of colonial-capitalist 'development' by keeping key elements of the colonial matrix of power intact.

This continuation of coloniality was palpable during my time in Durban. Jacob Zuma was president, and even children in the second and third grades of Durban South Primary would talk about him, usually in negative terms. In March 2017, just as my film workshop with children in Wentworth was picking up steam, a large march against Zuma took place in Durban, drawing thousands and marking a symbolic 'enough is enough' from the people of KwaZulu-

[85] As Bond and Hallowes (2002, p. 40) note, 'the settler-colonial and apartheid divisions of South Africa's land, codified by the 1913 Land Act and numerous subsequent policies and laws, left 87% of the land under white ownership and control, with millions of African people displaced to overcrowded "bantustans"'.
[86] See Steyn (2005) for an in-depth analysis of the continuities in environmental management practices.

Natal, Zuma's main bastion of support. Later that month, Ahmed Kathrada, one of the last surviving leaders of Mandela's generation of freedom fighters, passed away, and his family insisted that they did not want Zuma at the funeral. The country was clearly turning against the president, and I could not help but wonder, given his unpopularity, how he got elected in the first place.

The answer dates back to December 2007 when, in Polokwane, a provincial town north of Johannesburg, the ANC's 52nd National Conference took place. Here, Thabo Mbeki failed to win a third term as the party's president,[87] was subsequently recalled as president and replaced by Zuma, who went on to win popular support in the 2009 elections. As Chipkin and Swilling (2018, p. 4) point out, 'the Polokwane revolt in the ANC was informed by a conviction that economic transformation as pursued during the Mandela and Mbeki eras had produced an anomaly, if not a perversion: a small black elite beholden to white corporate elites, a vulnerable and over-indebted black middle class and a large African majority condemned to unemployment and dependent on welfare handouts to survive'. As a result, widespread calls for radical economic transformation and black economic empowerment could be heard across the ANC and countrywide, with Zuma chosen to implement these reforms.

But the pursuit of black economic empowerment ran into trouble: elements of the government (notably the national treasury) refused to cooperate when government contracts were awarded to black-owned companies without regard to cost, as they did not see this as providing 'fair value for the fiscus and for citizens' (Chipkin & Swilling, 2018, p. 5). As a result, the Zuma administration (by now nicknamed the Zuptas by the South African press)[88]

[87] There were multiple reasons for this, but the performance of the economy was arguably a key factor. According to Chipkin and Swilling, 'the economic policies of the Mbeki period were widely slated as a self-imposed programme of structural adjustment inspired by neoliberal economic policies. In the wake of Polokwane, and especially after the 2009 election, a search began in earnest for a more "radical" model of transformation. At the time, the Zuma presidency was applauded in "left-wing" circles for promising a break with the "neoliberal" policies of the Mbeki years' (2018, p. 4).

[88] This word is a combination of the names Zuma and Gupta. The Gupta family, which immigrated into South Africa from India in the 1990s, became widely seen as complicit in the project of state capture, with Gupta-

turned into ‘an orgy of power’ in which ‘there is little time to contemplate accountability to the public who had put the party in power’ and a criminal ‘shadow state’ emerged (Booysen, 2015, p. 28).[89] Soon, everyone in South Africa seemed to be talking about ‘state capture’—the idea that rather than being accountable to the citizens, the state had become ‘captured’ by a narrow elite (Renwick, 2018). While many simply saw Zuma as a corrupt leader motivated by self-interest (akin to the African leader stereotypes), state capture, in reality, was a more far-reaching political project.[90] Chipkin and Swilling (2018, p. 2) contend that the Zuma administration sought to ‘repurpose state institutions to suit a constellation of rent-seeking networks that have been constructed and now span the symbiotic relationship between the constitutional and shadow state. This is akin to a silent coup’.[91] State capture had its roots deep in history, long before the 2007 Polokwane revolt. ‘There is a clear and direct line of sight from the origins of the State in the Cape Colony, when it was “captured” by the Dutch East India Company, through to the era of Cecil Rhodes and “Milner’s Kindergarten”[92] . . . in post-Boer War South Africa’ (Chipkin & Swilling, 2018, p. 1). Simply put, the political imaginaries and ideoscapes that underpinned the colonisation of Southern Africa remained at work in the present-day republic.

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controlled companies being awarded state contracts and, according to some accounts, effectively controlling government budgetary allocations and other policies (Desai, 2018, p. 502).

[89] Opposition was mostly limited and middle-class, but it became stronger (including from within the ANC) in 2017 when the finance minister Pravin Gordhan and his deputy Mcebisi Jonas were sacked (Chipkin & Swilling, 2018).

[90] The use of rhetoric and propaganda was important in sustaining this political project. ‘In addition to Zuma’s new slogan “radical economic transformation”, the term “white monopoly capital” started surfacing all over social media where it was wielded mainly by his supporters . . . British PR firm Bell Pottinger, which was retained by the Guptas to burnish their image . . . was allegedly the mastermind behind this aggressive social-media campaign, according to numerous media reports. The firm reportedly made use of fake bloggers, commentators and Twitter bots to manipulate public opinion and divert outrage away from the Gupta family towards other imagined examples of state capture by white monopoly capital’ (Bisseker, 2017, p. 33).

[91] This report by Chipkin and Swilling (2018), titled *Betrayal of Promise: How South Africa is Being Stolen*, was originally made public in May 2017 and is widely seen as a key source in understanding the phenomenon of state capture. The report showed that ‘the struggle today was between those who sought change within the framework of the Constitution and those who were ready to jettison the terms of the transition to democracy’ (Chipkin & Swilling, 2018, p. 7). It was the latter group that sought to advance the political project of state capture.

[92] ‘Milner’s Kindergarten’ refers to ‘the name popularly given to the young British civil servants who served under High Commissioner Alfred, Lord Milner’ (Chipkin & Swilling, 2018, p. 1).

By the time I returned to Wentworth to share my findings in February 2018, South Africa had a new president, Cyril Ramaphosa, a long-standing trade union leader and freedom fighter. He had been elected president of the ANC at the 54th National Conference in December 2017, defeating Nkosazana Dlamini-Zuma, the wife of the former president who was widely seen as advancing the agenda of state capture. Ramaphosa led the ANC to victory in elections in May 2019, albeit by the smallest margin in democratic history—apparently reflecting the South African population's disillusion with the party that brought the country democracy.[93] It remains to be seen whether and to what extent Ramaphosa reverses the state capture orchestrated by his predecessor.

Where does this history leave the discourse on environment? One clue can be found in the macroeconomic growth, employment and redistribution policy of the first post-apartheid government that continues to shape today's policy. This document contains just a single tokenistic mention of 'environmental sustainability', and even that is in the context of attracting foreign investment rather than reversing any of apartheid's structural legacies (Bond & Hallowes, 2002, p. 44). Bond and Hallowes (2002, p. 25) write, 'Restoring the eco-socio-economic balance was one of the most challenging of all the enormous responsibilities the first democratic South African government faced in 1994, just as the painful exercise of identifying capitalism's environmental self-destructiveness occupied global elites in Stockholm in 1972 and Rio de Janeiro in 1992. Locally and globally, however, elites were not up to the challenge of adopting potential solutions'. And so, just as the colonial-capitalist-*Hindutva* ideoscapes act to depoliticise the environment in India, state capture, along with a legacy of colonial-capitalist currents of history, have a similar effect in South Africa.

[93] ANC's support in this election stood at 57.50 per cent of the vote, down from 62.15 per cent in 2014 (The Economist, 2019).

4.2.1 Waiting for social justice in 'Wenties'

When I entered Wentworth for the first time, as I looked around at houses surrounded by fences with cars parked in front and saw the panoramic views from the township's streets, I thought to myself, 'It's not so bad.' But as I got deeper inside the neighbourhood, I saw flats that were infamous for hosting drug gangs (Fig. 46), children playing football in front of an oil refinery that was literally killing them (Fig. 47), piles of trash around the commons (Fig. 48), old people rolling on broken wheelchairs, car wrecks that served as playgrounds for children, malnourished street dogs. And soon the smell hit me, a strong chemical odour that made me question if it was safe to inhale the air. I was, after all, smack in the middle of the South Durban Industrial Basin (Fig. 50). The refinery smokestacks filled the horizon and provided a backdrop to the scene I was observing.

Local colleagues said it was not safe for me to walk around alone, so I slowly drove around to get a feel for the neighbourhood. While I did not hear any gunshots, the gangs were obvious among the groups of young men huddling together on street corners (Fig. 49), looking ready to attack any moment (or was this just my racialised imagination?). As one local scholar put it, 'like the Cape Flats, the political and economic marginalisation of Coloured men in Wentworth under apartheid influenced the construction of a violent, sexualised masculinity linked to gang membership' (B. Anderson, 2009, p. 58), even though some recent research has challenged the hegemonic status of such masculinities.[94]

This local violence seems to have grown out of the violent way the apartheid government built the township. Wentworth was fashioned in the 1960s out of 'a stock of "farmland", military housing, railway workers' housing, a former concentration camp for Boer prisoners, and a swampy informal settlement next to the refinery site called Happy Valley'

[94] According to Anderson (2009, p. 63), 'despite the continued prevalence of gang cultures in Wentworth, gangster masculinity is losing its hegemonic status as the most sought-after form of manhood among many young men there'. This is partly because 'God is believed to be a powerful tool to keep these boys out of trouble' (p. 62).

Figure 46: Flats and oil refining in Wentworth

Figure 47: Children playing football in Wentworth

Figure 48: The state of 'the commons' in Wentworth

Figure 49: 'Gangsters', 'troubled youth' or simply innocent children?

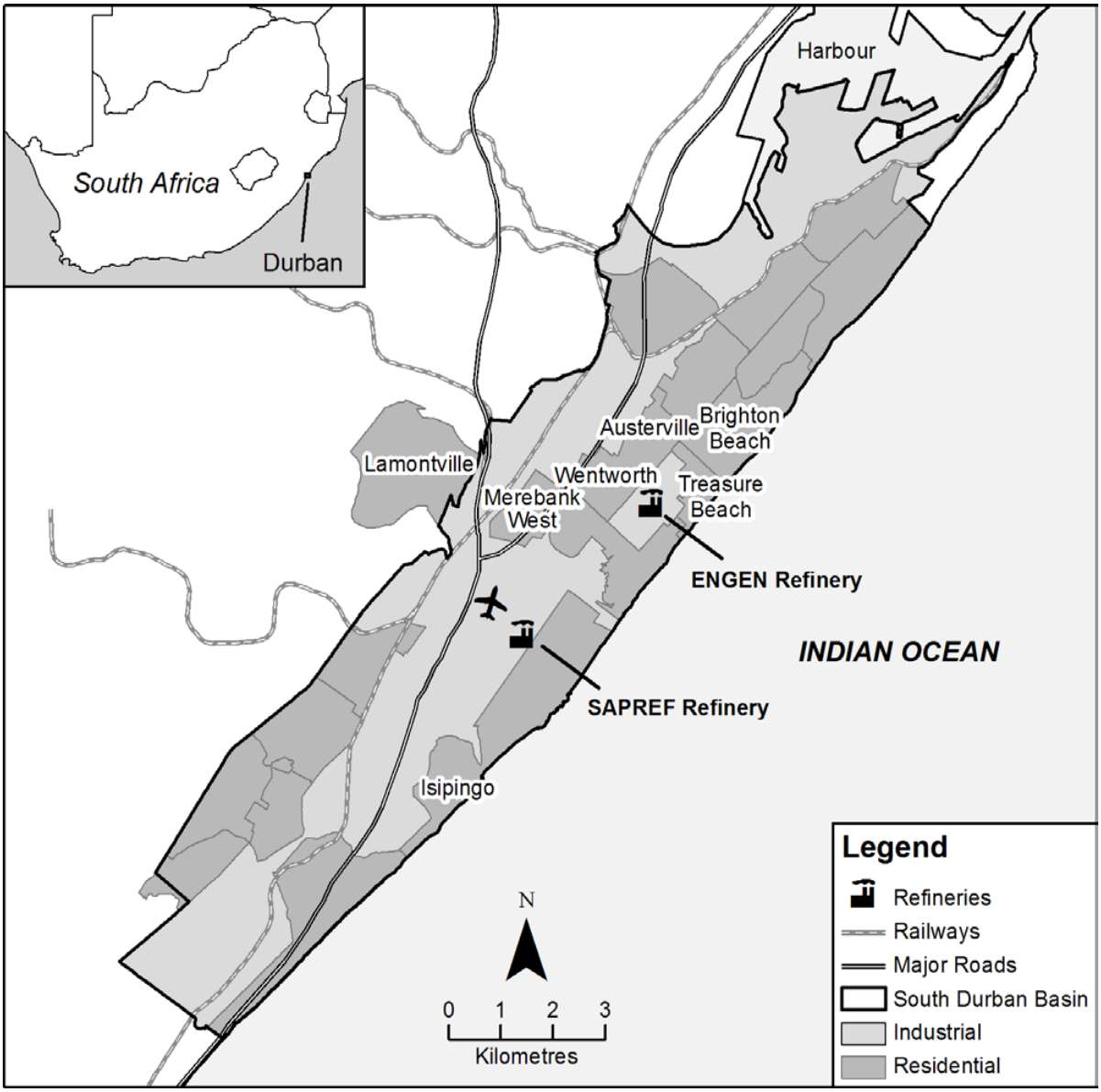

Figure 50: The South Durban Industrial Basin[95]

(Chari, 2006a, p. 123).[96] The township was a direct result of the apartheid government's 1950 Group Areas Act, which led to the eviction of Indians living in Durban (many of whom were

[95] Reproduced from Brooks et al. (2010).

[96] A vivid description of Wentworth in the 1970s can be found in Rostron (1991, pp. 24–25, quoted in Desai, 2017, p. 86-87): 'Hemmed in on one side by an industrial estate and on the other by the Mobil Oil refinery [today's Engen], it sprawled over several lilliputian hills. Wentworth was eleven kilometres from Durban city centre, just off the freeway on the route to exotic South Coast holiday resorts like Amanzimtoti and Umtentweni. There was nothing exotic about Wentworth. The main approach was up Quality Street, past the gloomy Girassol Café and at the crest of the hill the dour, decaying Palm Springs Hotel. The sandy roads were rutted and uneven, often strewn with building rubble and household rubbish, and after a sudden tropical downpour the craters in the road would form small lakes. Packs of dogs roamed the dusty streets and children played in the open storm drains . . . At night the Mobil Oil refinery glowed with a thousand pinpricks of light in the velvety dark, and its slender, fifty-foot chimneys belched out vivid flames like some vast starship from outer space. The refinery was heavily fortified with tall barbed-wire fences, concrete walls and commanding watchtowers with spyholes. It had once been

moved to the neighbouring area of Merebank) and with them the coloureds who often lived in backyard tenancies. Those evicted were moved to former military housing in Austerville, today the heart of Wentworth, where they met other coloureds forcibly moved from Cato Manor, Mayville and as far away as the Eastern Cape.[97] As Sharad Chari's research has shown, by the 1970s, a period of crisis for the apartheid regime and the country's economy, 'subaltern Coloureds in Wentworth had few effective mediators . . . [and] turned inward, to churches [Fig. 51-52],[98] soccer, gangs and a bittersweet valorisation of locality' (Chari, 2009, p. 524).[99] What followed, Chari argues, was ghettoisation 'in the analytical sense proposed by Wacquant as a process involving stigma,[100] constraint, spatial confinement and institutional containment' (Chari, 2006b, p. 427).[101]

attacked, in one of the few military actions in that area, by an African National Congress unit armed with rocket launchers, but the police soon winkled the unit out of their strategic position on the hill and gave chase to the guerrillas right through Wentworth, finally pinning them down in a paint factory in Hime Street, where all four insurgents were shot dead'. Short of the attack on the refinery, this description could easily be written about Wentworth in the 2010s.

[97] For the coloureds in South Africa, this was a double-edged sword. 'The Group Areas Act was something of a blessing in that it offered improved housing to Coloureds', Chari (2006b, p. 427) notes. 'These contradictions allowed some to seek to exploit the levers of the apartheid state, and others to paint Coloureds as intrinsically complicit with apartheid' (Chari, 2009, p. 524).

[98] According to Desai (2017, p. 88), 'there is a plethora of churches, with some estimates putting the number at 81, in an area of approximately 30 000 residents'.

[99] This, however, does not mean that the inhabitants of Wentworth lack political agency. In this regard, Chari's (2006a, pp. 523–524) observations echo some of the findings of my fieldwork: 'On my initial trip to Wentworth in 2002, I thought that his was a subaltern population without a bourgeoisie to represent them. I have since found residents tremendously innovative in using governmental mechanisms to leverage resources from corporate capital and local government, through what Chatterjee (2004) calls a "politics of the governed"'.

[100] Chari here references Wacquant's (2004) definition of 'ghetto' in the *International Encyclopedia of the Social & Behavioral Sciences.* 'Recognizing that it is a product and instrument of group power makes it possible to appreciate that, in its full-fledged form, the ghetto . . . serves opposite functions for the two collectives that it binds in a relation of asymmetric dependency', Wacquant (2004, p. 3) writes. 'For the dominant category, its rationale is to confine and control, which translates into what Max Weber calls the "exclusionary closure" of the dominated category. For the latter, however, it is an integrative and protective device insofar as it relieves its members from constant contact with the dominant and fosters consociation and community building within the constricted sphere of intercourse that it creates' (2004, p. 3).

[101] While this historical narrative is consistent with the oral history interviews I undertook here, I would hesitate to use the word 'ghetto' in connection with today's Wentworth. The solidarity between people within the township—including in the form of environmental activism—is palpable, and not compatible with Wacquant's notion of a ghetto.

Figure 51: Religion and flats in Wentworth

Figure 52: Religion and oil refining in Wentworth

Helen, one of my informants in Wentworth, expressed a similar sentiment in her narrative of resettlement. Helen was moved to Wentworth from Mayville in the 1970s and today works in Durban South Primary's canteen, giving out lunches to children eligible for government-sponsored meals. Back in Melville, she remembered, 'it was a different scenario because there we lived with all different nations. And we were hand in hand with one another, we spoke to one another, we played with other races and all that'. But in Wentworth, even though the community is also very diverse, relations between different groups are nowhere as cordial. 'You find you have Indians, you have Africans in our area and they have a race issue now. It's a racial issue that goes on. So, like you not free to be with these people. So, it's like awkward to live like that'. What Helen seemed to be getting at was, as a result of arbitrary resettlement, Wentworth residents had lost the mutual respect and the bonds that had developed organically in Melville (and in Cato Manor,[102] District Six in Cape Town[103] and other multiracial communities dismantled by the apartheid regime). Her comments reflected the continuity of a hierarchy of racial classification that originated in South Africa's eugenicist, colonial past (Klausen, 2018). They also resonated with the narrative of 'not black enough, not white enough' that I heard many times over in Wentworth—the idea that the coloured's racial position prevented them from reaping benefits of the post-apartheid dispensation, which fuelled racial tensions.[104]

[102] For a discussion of the violence of forced removals and the subsequent fate of Cato Manor, see Edwards (1994) and Popke (2000).

[103] District Six in Cape Town is (along with Sophiatown in Johannesburg) perhaps the most well-known case of apartheid-era forced removals, in part thanks to the creation of the District Six Museum which tells the area's story. For scholarly accounts of the forced removals, see Hart (1988), Swanson and Harries (2001) and Beyers (2007)

[104] Interviewing a local journalist who had written on South Durban extensively, I expressed my surprise that the end of apartheid has not led to more improvements for the community in Wentworth. As the journalist tried to explain to me why this was the case, he said, 'and to be brutally frank, I think in terms of political power, I think if there was a larger Black community, it might become more of a political platform. Whereas where it's–now I need to be very careful what I say here because race is always very divisive and sensitive issue. But you know, to some extent, Indian and coloured communities, I'm not sure whether they have the same political power'.

The lack of job opportunities in Wentworth was another factor adding to community friction. The luckiest among the men 'have been shaped into the pre-eminent semi-skilled industrial migrants of South Africa' in the capacity of 'pipe-fitters, boilermakers, fitters and turners' (Chari, 2006b, p. 428) who work seasonally across South Africa's refineries. But not all of them were so 'fortunate', as drugs and gang violence proliferated in the township from the 1970s.

Unemployment statistics in Wentworth are indeed alarming. Out of approximately 27,000 residents, at least one-third between ages 15 and 65 are unemployed, a large number of people cannot work due to disability or illness (often caused by air pollution), 'an equally sizeable group either chooses not to work or could not find work; and a significant group is comprised of currently unemployed seasonal workers' (Chari, 2006b, p. 429). This last group's lot has become considerably worse since a wave of major strikes in the 1980s, when Engen started outsourcing and using labour brokers, many of whom were in fact ex-gangsters. In the words of Chari's informant Lenny, 'gang leaders actually became labour brokers. It was a mob thing. It's not been broken' (Chari, 2006b, p. 430). Another strike in 2001 led to Engen's model of partial shutdowns 'planned at short notice in order to lower the risk of strike activity' (Chari, 2006b, p. 431), exacerbating what was already a precarious livelihood for the seasonal workers from Wentworth. The lack of job opportunities forces residents to seek at least some of their income through drugs, theft and sex work (p. 430).

Figure 53: Inside the "naughty" 7A class

The Wentworth residents' struggles and their strategies for negotiating around them became clear to me when I spoke to Grace, the mother of a boy in the filmmaking workshop. We sat in a classroom belonging to the notoriously naughty class 7A, surrounded by textbooks and exam papers, with stationery and all kinds of rubbish strewn around the floor and chairs randomly tossed around the room (Fig. 53). The state of the classroom seemed to perfectly match the world outside its walls, and the subject of our conversation. A tall woman with a booming voice and upright posture, Grace cut an unusual figure in Wentworth. 'She's tough', I had been warned by another teacher, but I sensed a certain softness behind Grace's loud words, a dignity rooted in her Christian faith and a sense of purpose in her work.

A single mother of four—two older girls and two school-age boys—Grace shares a flat with her mother. She serves as a youth worker in the community, going school to school to spread awareness about HIV/AIDS, teenage pregnancy and drugs. She also works at a shelter for women who were victims of domestic violence and or addicted to drugs.[105] 'Life in Wentworth is hard . . . it's hard for the mere fact that the people have the perception of . . . its coloured mentality. We don't have to finish schools because there are shuts', referring to the shutdowns in the oil refineries during which local men get seasonal work. Grace continued, '[They want] big money, fast. They don't want to go through the whole struggle of small money, long-term jobs'. But there is another way to get big money. 'They'd rather go for the quick way out which is drugs.[106] So therefore I get the drugs, I get the earrings. I get the girls. I get the fast cars. I get the takkie'.[107] And this was still better than living in 'Wenties' in the

[105] According to Helen, this is yet another major social problem in the community: 'Many of the women in Wentworth are living in fear of men and do not know how to get rid of them. The abuse, physical, mental, emotional, sexual abuse. So, you continue in the relationship of being abused'.

[106] The narrative I heard many times during my time in Wentworth was that the prevalence of drugs in the community had much to do with the police's complicity. In Helen's words, 'we've got drug dealers that are in with the cops. They actually buy them. There's drug dealers that have been caught with drugs but they never stay a day in the cell or go to jail or anything because the magistrate that works here, he's in with them. He snorts cocaine. So, how are you going to get a drug dealer to be caught if the top guys are doing what the drug dealers are doing? . . . So, we must now walk in fear. We're always walking in fear because we don't know who's the rapist, who's the drug dealer, we don't know'.

[107] "Takkie" is Afrikaans slang for branded, high-quality sport shoes.

recent past. Thinking back to when her children were little, Grace recalled life being worse. 'You know we lived in time where, when it reached a certain time in the evening, we'd sit flat on the floor and watch TV. Who lives like that?' When I asked her why she chose this particular school for her son, Grace did not hesitate: 'I chose [it] because of their high discipline. Discipline for me is very important'.

Pollution has affected Grace's family. One of her daughters developed asthma when she was eight years old. 'I thought my child was dying because I didn't know what was wrong with her because she just couldn't breathe', Grace remembered, getting visibly agitated for the first time in our conversation. Both her daughters had gotten out of Wentworth because of the violence and the pollution. 'If I had my way, my sons wouldn't grow up in Wentworth'.

These struggles were echoed by all of my informants in Wentworth. The need to work multiple jobs and live in intergenerational households to make ends meet was common; in fact, many of the children were looked after by a grandparent or other relative and did not live with either parent, as many were migrant labourers working away from Durban or had died from gang violence, HIV, leukaemia or other pollution-induced illnesses. The ways violence and pollution affected Grace and her family were common among my informants, and many god-fearing residents seeking to lead a respectable life seemed almost to be tip-toeing around the violence in the community.[108] The emphasis on discipline in choosing a school was echoed by many parents I interviewed; it was considered the quality needed to overcome the temptations of drugs and gangs.[109]

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[108] This was not the case with everyone, however. In an interview, the parents of one of the students who participated in the observational filmmaking workshop told me that they did not feel strongly affected by air pollution or by crime. They lived in a part of Wentworth not immediately adjacent to the refinery and their small house was surrounded by a large fence. The creation of 'islands of security' through (electric) fencing, barbed wire, alarms and private security firms, was visible all over urban South Africa, including in Wentworth.

[109] Exhibit on the gangs of Wentworth at the Kwa Muhle Museum 'in late 2002, researched and curated by a man from Wentworth. The exhibit scripts the rise and fall of Wentworth's gangs in four movements: from the building of Wentworth as an "unplanned mistake", to Group Areas "social conditions and unemployment", to the emergence of gangs, and finally to the "community tak[ing] charge" with the Church in command. Gangs are presented as a pathological consequence of overcrowding and lack of facilities for leisure, and the primary forces to counter the pathology are the church and the criminal justice system . . . There are several absences from this

Figure 54: Enjoying a cigarette in Wentworth's morning light

As reflected in Grace's struggles, Wentworth is a liminal space where the colonial-capitalist legacies of South Africa meet the harsh realities of a post-apartheid coloured township. These historical forces not only are behind the lack of work opportunities, inadequate education and health care, the environmental racism of largely unchecked industrial pollution in South Durban and the continued discrimination against the coloured people; they also create a situation in which fast violence eclipses slow violence, making it very difficult to talk of or act on the 'political' in the environment.[110]

And yet, Grace has not left. According to Chari, 'even in the flats of Woodwille Road, which housing activist, Jane Glover, calls "the ghetto within the ghetto", locals refuse to forget

history, not least of which are any connections to the anti-apartheid movement or to any kind of "struggle narratives". There is no mention of active underground MK cells in the community, of periodic blasts around the community and in the refinery itself in the mid 1980s, no mention of Steve Biko's time in Wentworth and the vibrant political and social life around the Alan Taylor residence either in the 1970s or in the 1980s, no mention of the United Committee of Concern, the UDF affiliate that organised sections of Austerville in the anti-Tricameral campaigns. There is also no comment on street talk and street style, on urban hipsters with their cars, girlfriends and hangers-on. Instead, gangs are remembered as purely a result of brute competition over space brought on by overcrowding after forced removals' (Chari, 2005, p. 12).

[110] At least when it comes to natural environment; if we adopt a broader definition in which the fast violence of crime becomes central to experiencing 'the environment', it may be possible to speak of politicisation of the environmental through the spectacles of fast violence. This, however, still comes at the expense of politicisation around issues of environmental sustainability related to natural resources, pollution and the destruction of ecosystems.

how cool it can be to sit at the front-door step and see the whole world go by' (Chari, 2006b, p. 435). Indeed, as much as places like Wentworth and Pashulok might seem dystopian, they are not devoid of hope. Prior to my fieldwork, several South African scholars told me the community is full of 'characters' and this indeed was my experience: just as repression the world over has given rise to songs, poetry and art, so did the tough life in Wentworth instil in its residents a unique collective sense of humour and, at least on the surface, an attitude of unbending resilience. Even in 'Pollution Kills'—a film students made here while taking my observational filmmaking workshop (which I discuss in the following chapter) that dealt with the health effects of industrial air pollution—we find a scene that speaks to why the locals continue to live here. A woman is shown sitting on a chair in the golden early morning light wearing a robe (Fig. 54). When the students ask her how smoking makes her feel, she replies, 'Relaxed. It cools my nerves'. One student who worked on the film told me why they included this scene: '[We wanted to] tell people to not smoke, like build a centre for people to make them stop and have a meeting of people that are smoking and try to convince them to stop smoking'.[111] But I believe the scene—which drew laughter during screenings at the school—also was a symbolic invitation to viewers to recognise the woman's self-respect, connection to place and pride in a culture of resilience. In this thesis, I join the students of Pashulok and Wentworth in their effort to capture this buoyancy of the human spirit in liminal spaces of environmental injustice and depoliticising states. As the next chapter shows, the kind of schooling these children receive is often more of an impediment to than an enabler of such political imaginaries.

[111] The students' questions to the woman in the scene indeed strongly suggest that they disapprove of smoking; for example, they ask her why she thinks smoking is prohibited in public spaces.

Chapter 5.
Reading the Cultural Landscapes of Schooling: Depoliticisation and Hope

As educators, our role is to always create the belief that there is hope.
Mahesh, South Durban primary school principal

It was a Saturday afternoon in February 2017. Pranay, a math teacher at Seema Primary in Pashulok—a school 'temporarily' (more than ten years and counting) squatting inside a shopping complex (Fig. 55)—had just helped me select a group of pupils to participate in my observational filmmaking workshop. We sat in a dimly lit classroom (the electricity supply was off, as usual), with Pranay and I facing the students as we discussed their ideas for film subjects. One by one, the students stood up to explain their ideas, as if they felt I was there to interrogate them. The session reflected a dynamic that accompanied me throughout my fieldwork: in contrast to the students' expectations, the purpose of the video project was to elicit responses from children that adults might not access verbally, generating insights into how students interpreted and understood the environment.

Here I do not mean the environment in the forms often taught through ESE. I was seeking to access the students' 'phenomenologies of meaning making' (Dillabough et al., 2005) about the term 'environment' as a starting point for understanding the symbolic worlds and social landscapes of their lives—that is, its translation into a moving image or picture. Were they aware of the slow violence affecting their communities and, if so, how did they visualise it? I wondered whether their potential knowledge (acquired through schooling or otherwise) regarding the Tehri Dam would give me a glimpse into how they made sense of the dislocation and pain endured by their elders. While the process was designed to allow students maximum freedom in choosing their film subjects, I felt the need to steer them in a direction that would

Figure 55: A shopping complex in Pashulok that hosted a school on its first floor

be helpful for my research—a tension echoing my deeper concern about who benefits from this kind of ethnography, about how to avoid falling into the trap of extractive research and, above all, how to ensure that I would not impose my views on the students and turn the film into a neocolonial project dictated by a foreign researcher. None of these latter 'colonial proximities' (Mawani, 2010) were my aim, but the reality of fieldwork is that there is no genuine way to redact power out of research spaces.

As such thoughts ran through my head, the scene unfolding before me in the classroom was a reminder that power dynamics partially inherited from centuries of colonialism played themselves out every day through India's education system. My fieldnotes from this day were revealing:

Students unprepared; asked to state their subjects, which were echoing examples given by me in previous sessions (the life of the street dog, cow grazing in the field, air pollution, etc.)

Teacher visibly upset; made a scene in front of the students, telling me in English that they have not done their work, and then in Hindi shaming the students (saying things like 'you represent the students of India', etc.)

Mood in the room visibly dropped, with the students staring into the ground and the teacher continuing in English, explaining that these are the brightest students at the school so 'imagine what the rest is like' and that 'Peter is taking pains, I am taking pains, this is not part of my job' and, turning to me, that 'all your work has gone to waste because they did not do their part.'

At first it felt disconcerting that the students simply repeated the possible film topics I had shared with them rather than coming up with ideas independently, something I initially interpreted as a reflection of the rote learning and lack of critical thought in their schooling.[1] But Pranay's teaching style, which seemed to encourage this kind of learning (and which appeared to be the culturally dominant pedagogy used by all teachers in this school), was the bigger issue. This scene not only posed a challenge to my methodology—shaming and pressure are not exactly conducive to creativity and the kind of freedom of thought I was hoping to encourage through the film project[2]—it also alerted me to the (neo)colonial undertones of schooling in Pashulok (and in India at large[3]) as a legacy of the past, of that intangible but

[1] Later, I started recognising the limitations of this interpretation as I began to understand the rituals of discipline which, I believe, had more to do with the children's propensity to please the teacher.

[2] It was not just my own observations that convinced me the students' feared Pranay. In a fieldnote from February 2017, I wrote, remembering several conversations from the day: *Research assistant shared with me that the kids has told him they were scared of the teacher [Pranay], who is constantly putting them down; I then had a conversation with the teacher about this, in which he shared that working in a government school is 'like fishing for whales, you put your nets really wide and put in a lot of effort . . . but then all you catch is snails*'. My confrontation with Pranay about the children's fear of him did not result in him changing his ways, and I decided to invite my research assistant to every session to minimise the need for Pranay to translate between me and the students. However, his comments about 'fishing for whales' and 'catching snails' are revealing of his frustration at what he saw as a lack of impact of his work, which made him reluctant to change his ways as it would, in his eyes, amount to further wasted effort.

[3] A number of scholars of Indian education have pointed in particular to teachers' authoritarian tendencies. According to Vasavi (2015, p. 45), 'what marks most of the transactions between teachers and children is the socialisation of children into a culture of obedience, of silence and quiet, and of passive hearing, copying and repeating, doing the bidding of the teacher (including under-taking errands and/or acting as the monitor in the absence of the teacher) as the ideal student. These acts and relationships make and force each child to become an

proximal temporal arc Ricouer described and its surplus effects in the space they call the field. But was it fair to relegate what was unfolding in Pashulok to a simple colonial-postcolonial continuity of ideology? I was reminded of Connell's (2007, p. 215) assertion that 'metropolitan social theory comfortably talks about the constitution of society, about the building blocks of social processes, and about the reproduction of social structures. It has been much less keen—and perhaps lacks the concepts—to talk about the destruction of social relations, about discontinuity and dispossession, about the bloodshed and suffering involved in creating the world in which we currently live'.

Pashulok was, if anything, a site of rupture, dispossession and discontinuous time, a place escaping the neat currents of History and whose messiness had much to do with the disproportionate burden it bore for India's 'development'. A deafening quiet, interrupted only by teachers' voices (often shouting), echoed inside classrooms and through the walls, emanating into the school courtyard, a patch of grass covered with litter and lined by students' rusty bicycles. The silence was mirrored by a choreography of discipline: on my first visit, students were writing their exams in an outdoor corridor in unbearable heat (at least for me), sitting in neat rows on thin, dirty mats on sweltering concrete. All wore school uniforms, but some were badly torn and soiled, some tops were substituted with white T-shirts masquerading as shirts, and some feet lacked shoes. With their heads bent and their faces invisible, none of the students looked up at me, even though, in the months to come, I would receive many curious looks from them whenever they were not under the spell of order. This was a place where formal education was all about social and cultural reproduction—not of intergenerational knowledge but of patterns of exclusion enacted by a state determined to keep the oustees 'in their place'.

obedient child subject. At the end of these transactions and under the imprint of such relationships, the average GES pupil is typically rendered excessively docile, often incapable of independent thinking, and marked for life to being a subservient subject'. Majumdar and Mooji (2011) express a similar view. This phenomenon is also related to the 'colonisation of the mind' as discussed by Ashish Nandy (2015).

My second research site, Durban South Primary in Wentworth, South Africa, was, despite the very different context, in some ways similar, and the two schools testify to the potential of schooling to get in the way of a 'radical' sustainability agenda. While Durban South did not squat inside a shopping complex, its campus consisted of more than four-decades-old 'temporary' pre-fab classrooms that had far outlived their expected lifespan. 'You can hardly hang a clock because you can't drill a hole or you break the wall', Mr. Naidoo, the tall, balding and always cheerful principal whose eyes nevertheless seemed sorrowful, told me. The 'temporary' nature of the structures housing both schools mirrors the institutional liminality of formal education; just as the schools are waiting *in perpetuum* for a permanent facility, so too are the students caught in a limbo between promises of prosperity and the realities of life in a township or a dam resettlement site. The similarities ran even further: although I did not see any mats in Durban South, in what seemed like orchestrated rigidity, the learners here were shepherded through the school complex by teachers forming neat chains of bodies. It was as if both schools tried to make up with discipline for what they lacked in the world of imagination and physical infrastructure, or as if harsh treatment could address the underlying reasons the learners would 'misbehave'.[4] Schooling in both places was giving off a distinctive odour—one Goffman (1961) aptly labelled over a half-century ago the 'total institution'.[5]

I wondered where Arendt's view on administrative massacre might fit in such a vision of (post)colonial schooling. Her idea—that the more bureaucratic a state and its institutions are the more violent they are likely to be—seemed particularly appropriate. This insight, derived

[4] The two schools seemed to share more with one another than with other schools I visited in their respective countries, underperforming education for the poor and excluded seemingly transcending the boundaries of the state.

[5] It is important to point out, however, that neither site was meant to be representative of state-sponsored education in its respective country. Schools in South Africa and India both have complicated hierarchies with varying degree of state involvement, and my observations from Pashulok and Wentworth cannot capture this complexity. Many of the social and cultural patterns I observed in the two schools would, however, be likely to manifest in many other schools serving disadvantaged groups in both countries.

from tracing the causes of the fast violence of 20th-century concentration camps and gulags, seemed to apply to the 21st-century slow violence levelled against the planet and its 'marginal' peoples. According to Arendt (1970, p. 81), 'in a fully developed bureaucracy there is nobody left with whom one can argue, to whom one can present grievances, on whom the pressures of power can be exerted. Bureaucracy is the form of government in which everybody is deprived of political freedom, of the power to act; for the rule by Nobody is not no-rule, and where all are equally powerless, we have a tyranny without a tyrant'. The focus on order, discipline and power in Pashulok and Wentworth pointed in the direction of such tyranny. In these schools, the utopian idea that the world can school itself out of the mess of a multitude of planetary-scale Anthropocenic environmental crises by teaching young people about 'sustainability' ran into the reality of a transgenerational transmission of bureaucratisation accomplished by the very medium of schooling, with its associated testing regimes and apolitical socialisation.[6] Was bureaucracy to blame for this slow violence, and how was schooling, as an institution of liminality, playing its part in this violence?

Needless to say, my first impressions suggested that these schools were firmly stuck in the denial of irreversible anthropogenic environmental change and therefore unable to educate for the Anthropocene. In this chapter, I explore the extent to which the data from my ethnographic fieldwork confirmed these impressions. In particular, I focus on the following questions: In what ways does the administrative machinery of procedural learning intervene in intergenerational knowledge transfer about the environment? In what ways, if at all, does historical responsibility shape the process of schooling and who mediates this learning? In what

[6] This idea is confronted in some of the literature critical of depoliticisation and individualisation of responsibility for the natural environment. Maniates (2001, p. 37), for example, notes that his 'students argue that the best way to reverse environmental degradation is to educate the young children now in school. When pressed, they explain that only a sea-change in the choices individual consumers are making will staunch the ecological bleeding we're now facing—and it's too late to make much of dent in the consumer preferences of young adults like themselves'.

ways might schools act as sites of (de)politicisation of environmental issues? How do young people make sense of slow violence?

The answers to these questions were more complicated than I expected, as I learned early on in the observational filmmaking workshop I conducted at Durban South Primary. While the students here found it easier than their peers in Pashulok to come up with ideas for subjects for their films, security concerns made it difficult to film in the community. Given the high crime rate, students were scared they might get attacked and have the cameras stolen from them. Together with English teacher Aruna, my key informant at the school, I organised an evening session for the parents at which we discussed the project, assigned cameras to teams and asked parents to sign forms (Appendix N) in which they agreed to help their children protect the equipment. Aruna knew all the families personally, and I sensed she had already decided whose parents were responsible enough to be trusted with the cameras. But, she later told me, the meeting did not go as she had imagined. One of the families she believed should be assigned a camera did not come. Keen to move the filming along, I pushed for the camera to be given to a different parent from the same group, something Aruna disapproved of and tried to communicate to me, but I missed her signals. After the meeting, she told me it was dangerous to give the camera to the parent who took it. 'I know that woman. Her husband is an abusive drunkard and she's like a little mouse who cannot stand up to him. He'll steal the camera and sell it to pay for his drinking', she told me. I was stunned. 'What should we do now?' I asked her. It seemed the only reasonable course of action was to enter the thick, unlit darkness of a Wentworth night and retrieve the camera from the parent before it was too late. Given that Durban academics had advised me never to enter Wentworth at night, let alone walk the streets on foot, this prospect did not appeal to me. 'Don't worry, they know me here and won't do anything if you're with me', she said, referring to the local gangs which allegedly dominated and controlled the informal economies of Wentworth. While we managed to get the

camera back and later allocated it to a different family, this episode brought home just how much the context of fast violence in Wentworth shaped not only the lives of the children but also their experience of formal education. If security is a ritual of existence, how could a political space for studying the environment ever become possible?

Many official agencies imagine schooling to be a site of transformation into a more sustainable society—a hope reflected in SDG 4.7 (UN General Assembly, 2015),[7] across much of the ESE discourse (Räthzel & Uzzell, 2009; Sauve, 1996; Strife, 2010; Vare & Scott, 2007) and in international and national policy documents (Rajamani, 2007; Rossouw & Wiseman, 2004).[8] Yet, both India and South Africa struggle to deliver even the most rudimentary education to all students while perpetuating a culture of rote learning, textbook-driven teaching (Kumar, 1988) and a curriculum that advances neoliberal notions of development, citizenship and sustainability (Ball, 2012; Nambissan & Ball, 2010; Staeheli & Hammett, 2013; Thapliyal, 2016; E. Weber, 2002). Given these realities, is educating for the Anthropocene even a possibility in these schools?

[7] SDG 4.7 aims 'by 2030 [to] ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development' (United Nations, 2015c, p. 14). This goal is based on the premise that education can counter un-sustainability, transform culture and politics, become a panacea for humanity's greatest challenge in history. But the SDGs have been critiqued on the grounds that they promote development within the neoliberal, infinite-growth paradigm (VanderDussen Toukan, 2017; H. Weber, 2017a). My research into the individualisation of responsibility at the root of many ESD programmes aligns with this line of argument.

[8] India, for example, boasts one of the most progressive policy frameworks for environmental education in the world (see the position paper of the National Focus Group on Habitat and Learning [NCERT, 2006] for a broader set of policy recommendations related to teaching EE in Indian schools). Every primary school in India is required to teach environmental studies, a subject instituted after a landmark decision of the Indian Supreme Court in 2001. In this decision, the court ruled that, to deliver on the constitutionally guaranteed right to a clean environment, the government must educate all children to become environmentally aware citizens (P. Sharma & Menon, 2018). In South Africa, themes of ESE are seen as 'cross-cutting' issues and therefore are meant to be infused into a range of subjects, even though there is no dedicated class in the country's curriculum. This is discussed in more detail later in this chapter.

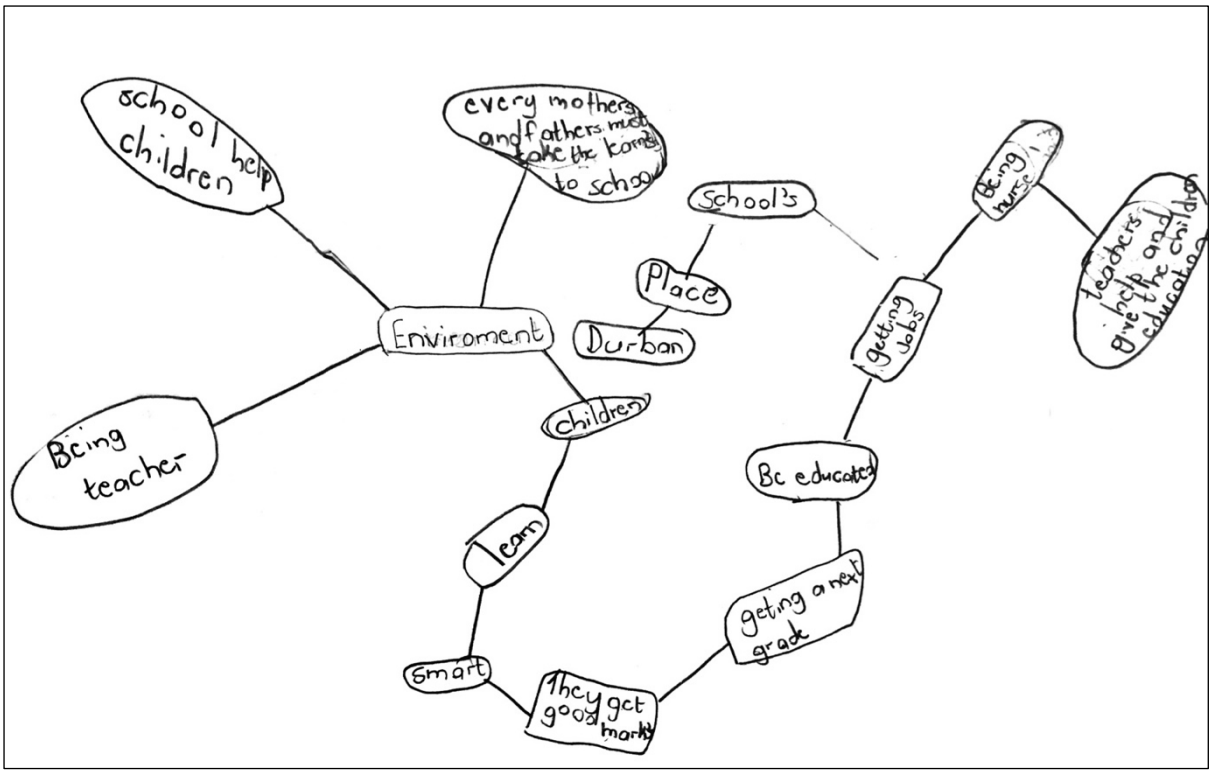

Figure 56: The environment as a source of hope

In this chapter, I argue that both schooling systems, while exhibiting characteristics of Goffman's (1961) total institution and its attendant bureaucratic functions and practices that disrupt intergenerational knowledge transfer, also reflect elements of hope. This was most powerfully reflected in the perspectives of learners at both sites who, despite the impact of schooling, often attained an understanding of the environment rooted more in Arendtian than in postcolonial and post-totalitarian understanding of politics. Consider, for example, a mind map drawn by Ashu, a 6-year-old boy in a Wentworth focus group about the word 'environment'. While many mind maps focused on crime, pollution, illness and other struggles of the local communities, this student saw the environment (and the school) as an opportunity to grow, learn and help transform not only the self but also the society at large. I encountered many students whose thinking seemed oriented toward hope rather than despair—a clear rebuff of the notion that structural 'educating for inequality' defines learners' identities or takes away their agency.

Much of the data the analysis in this chapter relies on comes from interactions with teachers and school principals and administrators. I was allowed to observe lessons during my fieldwork in South Durban, but not in Pashulok, and environmental education was not a focus during lessons at either site.[9] During my fieldwork, I spent several hours a day at each school interacting with students (mostly in the context of the observational filmmaking workshops, but also in focus groups and individual interviews), which enabled me to speak informally with school staff and observe the day-to-day life in the schools. While in Durban, I also visited and interviewed educators at several schools outside my primary research site, which allowed me to contextualise my findings further.[10] I was not able to do this in Pashulok, since getting access was much more difficult, as was the language barrier. Both factors limited my ability to collect 'thick' data in Pashulok. As a result, my ethnographic account of schooling in South Durban is more nuanced, but I nevertheless was able to draw meaningful comparisons that point to important convergences between the two sites in pedagogy, content and ideologies underlying formal education, as well as divergences in the politicisation and awareness of students and teachers. These education systems may not deliver on their own promises or the students' hopes for the future, but, as explained in the next chapter, this does not mean that students will not turn their minds elsewhere to cultivate and enact novel and hopeful political imaginaries of alternative futures.

[9] The observation data therefore mainly serve the purpose of triangulation with teacher/administrator interviews in establishing patterns of convergence and divergence within and between sites.

[10] Thanks to longer fieldwork, the ability to communicate with informants without translation, and the urban nature of my site (which means a higher density of schools than in Pashulok), I was able to visit two other schools and to conduct two follow-up visits at one of them. At this latter school, I was given the opportunity to organise focus groups with pupils and to interview the principal and several teachers. Due to the sheer quantity of data my fieldwork generated, and the breadth of issues covered in this thesis, I decided to leave these schools out of my ethnographic narrative and focus solely on Durban South Primary. However, this element of my fieldwork was important in helping me understand the larger picture of schooling in South Africa, specifically in South Durban, and it informs my analysis.

5.1 Squeezing the environment out of India's education for development

Searching for environmental education in Pashulok was a tall order. Initially trying to find a handprint school, I soon gave up[11] and decided to go for the next best thing—a school that taught environmental studies and had a significant population of children from oustee families. Rakesh, one of my key informants and translator,[12] helped me secure access to Seema Primary, but it soon became clear that environmental studies was not a priority there. When I first approached the principal about getting permission to undertake research at the school, I was turned down. This decision was later reversed at Pranay's insistence, as he saw value in my offer to teach students the basics of documentary filmmaking. Toward the end of my fieldwork, I learned that the reason for the original denial was the school's anxiety that my research would focus on environmental education. The subject was not regularly taught here, and the school did not want this to become publicly known. This forced me to rethink my narrow definition of ESE and, instead of seeing it as a subject, a curriculum or a pedagogy, I began to understand that the forces shaping students' political imaginaries and sense of historical responsibility had their origins in the intergenerational cultural landscapes and ideologies underpinning schooling in Pashulok across (and between) school subjects.[13]

Insights into the ideology of schooling and the contrasts between this ideology and the oustees' lived experience often came through my relationship with Pranay or my conversations with Arvind, the English teacher at Seema Primary. These two teachers were the only two staff

[11] The reasons for this are outlined in the first methodological dilemma preceding Chapter 1.
[12] I address my relationship with Rakesh and the ways in which he intervened in my fieldwork in India in the third methodological dilemma preceding Chapter 6.
[13] There appeared to be an uneven political geography of time as these forces interacted in complex ways with the histories of both dispossession and accelerated discontinuous time (what we might call postcolonial time or Gregory's [2004] "the colonial present") that shaped the school's context and exposed students to contrasting messages about the temporal arc of their lives. In reflecting on this finding, I was reminded of an interview I conducted during my pilot in 2016 with one of the educators at CEE in Ahmedabad, who observed: 'Here in India the paradigm are that schools are schools, politics is politics, you know schools learn for the sake of learning and not for understanding the or delivering the political strength of it . . . There is no build-up of anything out of the schools, if at all there's a build-up, the build-up is towards the workforce for jobs, the build-up is towards that, not towards what I would call 'a social revolution' or 'an environmental response'''.

members who spoke English, and my communication with everyone else depended on translators,[14] who were not always available.[15] I saw less of Arvind than I did of Pranay because the observational filmmaking workshop took place in Pranay's classroom, and because he often talked to me before and after each daily session. If Pranay figures larger than life in my account of schooling at Seema Primary, it is because he figured larger than life during my time in Pashulok. Arvind's perspectives, however, helped me gain a more nuanced picture of the cultural forces at play in schooling there. Always smiling behind his moustache, he often expressed himself in flowery, colourful language while making broad gestures with his hands. Arvind was not from Tehri and had moved to Pashulok in 2005 to teach—he was one of the two teachers who had been at Seema Primary from the beginning, the other being Pranay. Arvind was from the plains in the south, and he was aware of what was happening in other states across India. I was particularly struck by the contrast between my expectation (and prior experience) of Indian schooling as a tool to advance modernisation and Arvind's take on the education system's shortcomings: 'I feel that in the drive for development we are losing out on our moral and traditional values', he told me as we sat in the teachers' common room, surrounded by an almost perfect silence as students worked independently in their classrooms. 'This is the land of Swami Vivekananda,[16] Ramkrishna Paramahansa,[17] Gautam Buddha[18] and Guru Nanak.[19] So many disciplined people took birth here. Instead of focusing so much on

[14] However, neither Pranay nor Arvind was directly involved in teaching environmental studies at Seema Primary, the subject that was—at least in the early days of my fieldwork—of greatest interest to me. Perspectives from other teachers at the school who taught the subject are discussed in the next section. These perspectives came out of interviews conducted in Hindi with the help of a translator.

[15] On several occasions, Pranay expressed a strong interest in translating. We tried this a few times, but I found that, much like Rakesh, Pranay brought his own agenda to translation (in this case a pro-dam, pro-development perspective on the fate of Pashulok oustees), and as a result, I decided to work with paid translators. This caused tension between Pranay and me, as he disapproved of paying local people to translate and considered himself a superior, and free, alternative.

[16] Hindu monk who lived in the 19th century and is credited with spreading Hindu teachings in the West.

[17] Hindu mystic and saint who lived in 19th-century Bengal, Swami Vivekananda's teacher.

[18] Religious leader whose teachings form the core of Buddhism. It is disputed whether he was born in India or Nepal, as both countries claim to be his birthplace.

[19] The founder of Sikhism who lived in the 15th-16th centuries.

scientific development, we must pay attention towards moral and environmental education'. Apart from the stress on discipline, Arvind's statement was notable for the list of people he saw as role models—two Hindu, one Buddhist and one Sikh religious figure.[20] This reflected his perspective that India's culture and history were products of mysticism, an echo of the Hindutva state Narendra Modi was busy building in Delhi as we spoke.

Arvind, Pranay and almost all their colleagues in Pashulok were high-caste Hindus, and the ideology of casteism was indeed palpable at Seema Primary.[21] One day during my fieldwork my usual translator could not come, and on a friend's recommendation, I asked a local college student to accompany me. He was from a lower caste and his skin was visibly darker than that of the teachers at the school. At mid-day, when we were invited to the teachers' common room for lunch, my translator was the only person at the table not offered any food—something I did not notice. When he brought it up with me later that day, much to my horror, I remembered Pranay asking me earlier that day how much I was paying the translator and suggesting that I was wasting my money. It was then that I realised that perhaps I had been naïve in assuming that Pranay and his colleagues saw the student (and parent) population they served as equals.[22]

I noticed early on in my fieldwork that the teachers were broadly supportive of Tehri Dam, but their sweepingly dismissive view of the oustees surprised me. It came up most powerfully in a conversation with Pranay about the early days of Seema Primary:

> *Initially I think for the first . . . two or three years you can compare the students which we get inside the school . . . to some you can say tribal people, some beast-like people . . . They don't have etiquettes how to sit, how to come in the school with proper uniform, to get early from the bed, take the bag, come to school, not even the, we even made them how to wash*

[20] In the mountain regions, both Hinduism and Buddhism are practiced by a significant number of people, many of whom see Buddha as a Hindu god. Even though the list might appear diverse, I believe it reflects a Brahmanical cosmology (one rooted in the Vedas) rather than acceptance of religious diversity.
[21] Except for one teacher, who was a Rajput, a people historically associated with being warriors.
[22] On one level, this observation reflected my own values and the privileged gaze of a researcher from the Global North. On another level, however, what I was witnessing also contradicted the values of equality and fraternity in the context of a casteist society encoded in India's constitution (Jaffrelot, 2005) and the lower castes' countless struggle for equality and justice throughout the colonial and postcolonial periods (see e.g., Ambedkar, 2014; Hardtmann, 2010; King, 2015; Kolge, 2017).

the faces. We have done many, many things, I think the people will not consider, not count them as the important factor but we think those are the factors that converted this school to the form in which it is at the present.

This stunned me; it was as if I was listening to a British colonial officer talking about India's indigenous populations a century earlier (Seth, 2007), in an era of colonial education (S. C. Ghosh, 2012; Topdar, 2015; Fig. 57).[23] While I could see that Pranay was bragging about how far the school had come and that some of his word choices ('beast-like', for example) could be attributed to English not being his mother tongue, the underlying sentiment—seeing the oustees as subjects to be reformed who had learned virtually nothing valuable from their elders—was clear. In an undisguised echo of the British Raj (Armitage, 2000), Pranay saw himself as an agent of the state, and the state equalled civilisation, development and progress. Along with his colleagues (as we shall see in the next section), Pranay's views and behaviour seemed to be regulated by a culture of casteist exclusion.

I was troubled by this culture and had to remind myself constantly that individual teachers were only partially responsible for it, since the historical, social and economic context of 2017 Pashulok played a big part, too. Moreover, I sought to suspend judgement because I depended on these teachers for access to my research site—Pranay in particular. One of the longest-serving and most active teachers at the school, he was not just my key informant but someone who carried himself with a gravitas that often made me wonder whether he was really the de facto principal of the school. When he walked the corridors in his upright posture, hands behind his back, fingers interlinked, students would slow down, look at the ground and quietly

[23] A number of scholars of Indian education have pointed to a homonymy of ideas about education between colonial-era officials and the nationalist elites that governed the country after Independence (S. Basu, 2010; Kumar, 2005; Srivastava, 1998).

Figure 57: Colonial school in British India[24]

mumble a greeting, signalling their respect and—I suspected—fear. The moment he pulled his motorbike through the school gate in the morning, something shifted in the school's atmosphere; the noise level dropped and students would stop running up and down the stairs of the shopping centre where the school was located. Given his influence, I thought it lucky that Pranay became my ally and saw my project as an opportunity to enrich students' lives. But even as I owed him a debt of gratitude for vouching for me to the principal, and even as I witnessed his commitment to his students and his unorthodox methods, it was difficult to ignore that he appeared to be part of a culture of coercion and paternalism.

[24] Photo 1000/46(4676): c 1870, British Library, Lesson in progress in a classroom of the Government Male Normal School, Nagpur. Photographer: Unknown. Part of the Archaeological Survey of India collection.

Figure 58: Pranay's 'mathematics lab' with film equipment ready for the first workshop

But Pranay was not the problem, nor was Arvind or their colleagues. As I try to make sense of him in writing this chapter, I am reminded of the three Tanaka brothers in Seth Holmes' (2013) ethnography of migrant farmworkers in the United States. Holmes' account is full of horrors arguably greater than what I saw in Pashulok, from the exhausting, dangerous border crossing to the permanent disabilities migrants suffered as a result of unsafe working conditions. Yet Holmes argues that the Tanakas, who owned and ran the strawberry farm where his fieldwork took place, meant well and even consciously tried, within a space constrained by neoliberal capitalism and corporate competition, to improve the lot of the workers. Pranay, too, tried hard to improve the lot of his students. I soon realised that his willingness to vouch for me because he believed my project would benefit the children was part of a pattern; he worked

hard to secure every such opportunity.[25] He was almost invariably the last teacher to leave the school at the end of the day and he had built a 'mathematics lab' at the school (Fig. 58), a highly unusual interactive learning space without desks or chairs that contained lots of models, toys and drawings designed to give the children hands-on mathematics lessons. The lab became my headquarters during my time in Pashulok, and it was where I met with the students who participated in my filmmaking workshop. Seema Primary was not simply a product of the ideoscapes of depoliticisation, it was shaped by individuals and subjectivities far more complex than any particular ideology.

When it came to environmental themes at the school, the individualisation of responsibility and depoliticisation of sustainability appeared to be the norm. During one of our lunchbreak conversations in the common room, I asked Arvind how he imagined a successful environmentalist. He first gave a broad answer, but soon zeroed in on an example. 'Most of us are only concerned about ourselves and in order to keep our homes clean, we throw waste outside the house, or on the road', he said, gesticulating with his hands in all directions, as if waste was all around us.[26] 'Many people burn plastic, which produces many harmful gases like carbon monoxide, which is damaging for the entire human race. It is a cosmopolitan view that these are dangerous things, and the nature lover will take care of these things'. I was not sure whether the reference to cosmopolitanism was yet another way to set himself apart from the apparently not-so-cosmopolitan oustees, but it seemed clear that Arvind saw environmentalism similarly to the educators in Indian and South African schools I visited in 2016 who were practising handprint.[27] Perhaps unsurprisingly, the conversation turned to planting trees, the

[25] For example, he took students to competitions, maintained relationships with local volunteer organisations and liaised with the Tehri Dam Hydropower Corporation, whose corporate social responsibility scheme benefited the school.

[26] While there was trash in public spaces in Pashulok, I understood Arvind's remarks as more generally targeting the local community's attitude about cleanliness. This generalisation registered with me as another manifestation of the dismissiveness with which upper-caste teachers viewed the oustees.

[27] Arvind had not heard of handprint, nor was Seema Primary in any way involved in any activities organised under the handprint banner, but by this point in my fieldwork I had come to understand that handprint was simply a reflection of the existing practices at a large number of schools in India and elsewhere.

quintessential handprint project. To my surprise, Arvind was critical. 'People in Delhi, Goa, you and me are planting trees. Kerala, Tamil Nadu all are planting . . . Then why is the earth still so barren? . . . Then why are we still so anxious about the weak environment? Why is it still in danger?' These were all good questions, I thought. Arvind continued: 'If organisations are planting so many trees, perhaps what is happening is that we are planting trees and doing a photo session around the event, but we never look back at the tree to see if it is surviving or not'. I found this critique of the commodification of environmentalism interesting and relevant, but it did not seem to negate the individualisation of responsibility for the environment that Arvind seemed to have embraced earlier in our conversation—unless by 'seeing if the tree is surviving' he meant tackling systemic issues that kill trees, like climate change or groundwater depletion. But by now I had heard enough from my various interlocutors about the meaning of environmentalism at Seema Primary not to give Arvind the benefit of the doubt, and I concluded that what he had in mind was more along the lines of watering the saplings.[28]

The idea of constraining the learners' imagined agency (now and in the future) to deal with issues that could be tackled by an individual and eschewing systemic issues requiring political action came across even more powerfully in my conversations with Pranay. One day, as we were sitting over lunch in the teacher's dining room—an empty classroom with a bare concrete floor, a table and a few broken plastic chairs—Pranay told me, as he was mixing his *dhal* with the vegetable curry prepared by the school's cook that day, 'When these students came to us in class VI, they even don't know how to write their names, but I'm sure you will be the witness, most of these students will pass with good marks'.[29] I wondered if what I was

[28] Reflecting on my interpretation as I write this thesis, with a temporal distance of almost two years since this interaction took place, it seems possible that I could have been wrong. Having re-read all my fieldnotes and transcripts and listened to some of the recordings of my interactions with Arvind, however, I still lean toward my original interpretation of his remark. It is, however, striking to me that I did not think to probe this further, which suggests that I, too, had an agenda entering this conversation—an agenda of proving a pattern of depoliticisation and individualisation in this liminal space.

[29] This seemed to be a rhetorical remark, as I had little sense of the students' academic achievement at this point (given how docile and quiet they were in the presence of teachers, and by extension, me), and I believe Pranay was aware of this.

really witnessing was the manifestation of systemic repression of cultures and knowledges seen by the state as not conducive to 'development'. Pranay continued: 'And what I can say, I can claim those marks as the result of my hard work, not that of their own. The good thing that these students are having is that they at least surrender to our efforts, if I make them sit here for three hours or six hours, they don't protest against us, *ki nahi sir* [but no sir], we are not going to sit here'. Though my face must have betrayed the state of my shock by now—after all, I still considered Pranay an 'enlightened' teacher who challenged his students with innovative methods—he continued as he took another bite of the curry. 'They at least realise that if their teacher is ordering them something or suggesting them something, that is going to be beneficial for them in the long run'.[30] Seema Primary, it seemed to me, was affording its students little agency in shaping their own education trajectories.

If this were the case, how did schooling here seek to shape the learners' understanding of the dam and the collective trauma of their parents and grandparents? As time went by, I broached the difficult subject of resettlement and compensation with both teachers. Arvind's take was that they were 'not displaced out of their country, they are in the same state of Uttarakhand, very close to Tehri' and while adult oustees were 'very attached to Tehri', the new generation was already 'settled' in Pashulok. Arvind did not seem to think much of displacement; in fact, I got a sense in my conversations with all the teachers that they were confused as to why I would choose Pashulok as my research site, as the oustee presence did not seem an important factor from their point of view. Pranay, too—while recognising that Tehri

[30] The idea that the students' agency lies in their 'surrendering' to the teachers and that any academic achievements are due to the work of the teachers rather than of the students suggests an almost total dismissal of the children's own initiative and motivation for learning. In trying to understand how pervasive this was, I tried to establish whether other teachers had a similar attitude. When I asked Pranay whether his views on discipline were shared by his colleagues, he remarked, 'We can't create a *mahaul* [environment] of discipline without the support of colleagues . . . We worked hard, for first four or five years . . . You can see the classrooms or you can say gallery you will not see a mark of pencil in the walls, which is a very common thing in schools'.

Dam had unwelcome environmental impacts—did not express any concerns about forced resettlement of the submerged villages:

> *In my opinion, the first generation is not happy just because of the nostalgic factor, otherwise . . . they've got a big amount of compensation as compared to their individual losses [of] what they've lost in during the building of the dam. For the new generation, they've got a big opportunity to transform their life, from a comparative backward scenario to the normal scenario regarding the education, regarding the social structure of equality and standard of life.*

I believed that Pranay's experience of the oustees' attitudes (toward history, education, money, the Indian state) rendered their grievances illegitimate in his eyes, but his remarks were consistent with his dismissal of the oustees' cultural knowledge as worthless and therefore seemed to me an act of symbolic violence, an expression of an intergenerational form of eugenics that manifested itself through the ideology and practice of casteism. In his mind, the oustees' financial compensation fully offset any losses; a way of life that had evolved over centuries in close contact with the natural environment became commodified and ultimately dismissed.

Over the course of my fieldwork, I came to believe the imagination of the 'normal scenario' Pranay referred to consisted of a combination of Hindu and nationalist ideas. Vasavi's (2015, p. 44) description of the culture of Indian government elementary schools is highly applicable to my experience of Seema Primary:

> *While everyday interactions are marked by hierarchy of age, gender and caste relations, the culture of special occasions or 'function days' (as they are called) is fused with the specific culture of the local society. Independence and Republic Days, as also Gandhi Jayanti and Children's Day, are celebrated not so much for their social and political significance but as days of reverence for historical leaders represented as deities . . . The result is a combination of both banal nationalism and banal Hinduism. Such religious (mostly Hindu-derived) ritualisation combines with dense nationalism embedded in the texts . . . These ideologies predominantly legitimise the dominance of*

Hindu society and its practices, emphasise a culture of subservience and obedience, and promote Hindu majoritarianism.

Even though I did not have a chance to observe the celebration of any civic holidays during my fieldwork, all the teachers expressed to me at one point or another—sometimes in interviews, sometimes in informal chats in the lounge or in passing remarks—their reverence for Modi, their pride in India and their belief that the students lacked 'cleanliness' (which I interpreted to refer both to hygiene and purity in a religious sense).[31] Over time, I started seeing these remarks as a cultural practice that helped maintain the social hierarchies regulating the teachers' behaviour and their perception of their students' abilities and needs.

At the same time, I was aware that the school achieved remarkable academic results by the standard of government schools in this area, and that this provided a way out of poverty for at least some students. I also recognised that the social issues in the community, including the breakdown of traditional social structures, petty crime and alcoholism, influenced some students' behaviour and created challenges for the teachers. But this did not seem a justification for Seema Primary's dismissiveness of the oustees' trauma, which delegitimised and eroded their intergenerational cultural knowledge and practices and favoured the infinite-growth developmentalist narrative in education. There was little space for Arendtian politics or agonistic pluralism here, whether among the learners (who were not invited to interpret the history or discuss the development trajectory of their community and country) or between the learners and other generations, the debt to whom was rendered invisible.

[31] The concept of 'purity' has a central role in Hinduism; those belonging to the lower castes are considered to be less pure than their upper-caste counterparts.

5.1.1 'An opportunity to relax': Passing time in environmental studies in Pashulok

One manifestation of the depoliticisation of environment at Seema Primary was the virtual nonexistence of environmental studies at the school.[32] I often encountered resistance when trying to talk to teachers about the subject. Radhika, one of the educators teaching the class, eventually admitted to me that there were no permanent teachers for the subject, which was partly due to the unavailability of teacher training for the subject.[33] 'Anyone can teach environment', she told me. 'I teach 6th and 8th grade. The drawing teacher takes the 7th grade . . . We teach them according to the textbook and make them [the pupils] learn the answers mentioned. Sometimes we get the students to plant trees . . . we tell them about watering the plants and the manure'. She speculated that the subject is taught by the drawing and physical education teachers 'because we don't have a lot of workload. In my previous school they would give this subject to mathematics teachers to give them a break from their hectic schedule'. The notion that no particular expertise is required to teach the subject, that teaching it constitutes a 'break' for teachers, implies that environmental studies is, in the words of another educator at the school, 'not taken seriously'.[34] These ideas also suggest that little or no critical thinking, political imagination or intergenerational knowledge transfer is involved in teaching children about the environment, reducing the subject to schematic, routinised, individualised actions such as taking care of plants. Indeed, as the physical education teacher concluded in our

[32] The subject of environmental studies, however, is not conspicuous by its absence. This description of the functioning of Indian government elementary schools by Vasavi (2015, p. 44) seemed apt as I observed how all the subjects were taught at Seema Primary: 'Class schedules and teacher-allocated classes are more on paper than in practice. Teachers take classes at times and of durations suitable to them. Children lug all the books to and from home and school, and the class timetable is rarely followed. With lesson plans an idea that is yet to take root, classes predominantly consist of reading from the text, some explanation made on the board, and "practice" (*abhyas*) sessions for a range of subjects. Where transactions take place at all, they are mostly routinised copying of words, sentences, questions and answers either from the board or the textbook or as dictated by the teacher'.

[33] By this I mean specialisations within education degree programmes of the kind available for other subjects. This absence of training came up in a number of interviews with teachers at Seema Primary and was confirmed in a number of my interviews with Indian academics and educationists but researching higher education programmes was outside of the scope of my research. It is possible that some programmes are available but neither my informants in India nor I were aware of them.

[34] Other subjects in my observation were often seen as routinised to the point that teachers could supervise each other's classes. Teachers' discipline-based identity and subject-specific expertise, in other words, seem to have been lacking across the board, and in this sense environmental studies was not an exception.

interview, 'this subject gives an opportunity to relax, we get to go to the field, and even in context of the textbook teaching, it is easy. Everyone knows about plants and environment, so perhaps because of that'.

India has instituted compulsory environmental studies classes across all grades in primary school, in keeping with the ruling of the country's supreme court.[35] Considering the many limitations of India's education system, however, it is not surprising that the subject receives little support. According to the government's own report on the 'infusion' of environmental education into India's primary school education, 'there appears to be still very inadequate exposure of the students to their "habitat"; there is little active learning from the natural and social worlds around them. The prescribed activities may simply be routinely taught as a set material to be memorised through teaching in the classroom instead of being pursued by students on their own with an open mind' (NCERT, 2005, p. 2). Teacher training for environmental studies is not provided, which means it is taught by teachers with various specialisations (as Pranay wrote on a piece of paper summarising Seema Primary's teaching practices of the subject he handed to me at the beginning of my fieldwork; Fig. 59); the subject also is not examined, which, in the context of India's culture of grades and credentials, diminishes the motivation of students and teachers alike to pay attention to it.

Whenever I asked the educators responsible for teaching this subject about the content of what they teach, they would ask a student to show me a copy of the textbook. The prevalence of the textbook culture and rote learning in Indian schools is well recognised (Kumar, 1988, 2005),[36] and Seema Primary was no exception. The apolitical nature of these textbooks is

[35] See footnote 8 of this chapter for more detail about the court's decision.

[36] Padma Sarangapani (2003) explored these cultural landscapes in her ethnography of schooling in a government primary school in 'Kasimpur', a village near Delhi.[36] (This is not a real name, as Sarangapani maintained the anonymity of the community in which she conducted her fieldwork.). Her findings, which echo my own observations in Pashulok, point to a rigid transmission of textbook knowledge from the teacher to the learners who are expected to memorise it, revise it and later recall it for an exam. There are only certain 'right' answers (and 'right' questions), and any failure to memorise these is due to the children's laziness. These cultural and ideological underpinnings of schooling in India fuel what Arendt might describe as the bureaucratisation and depoliticisation of schooling.

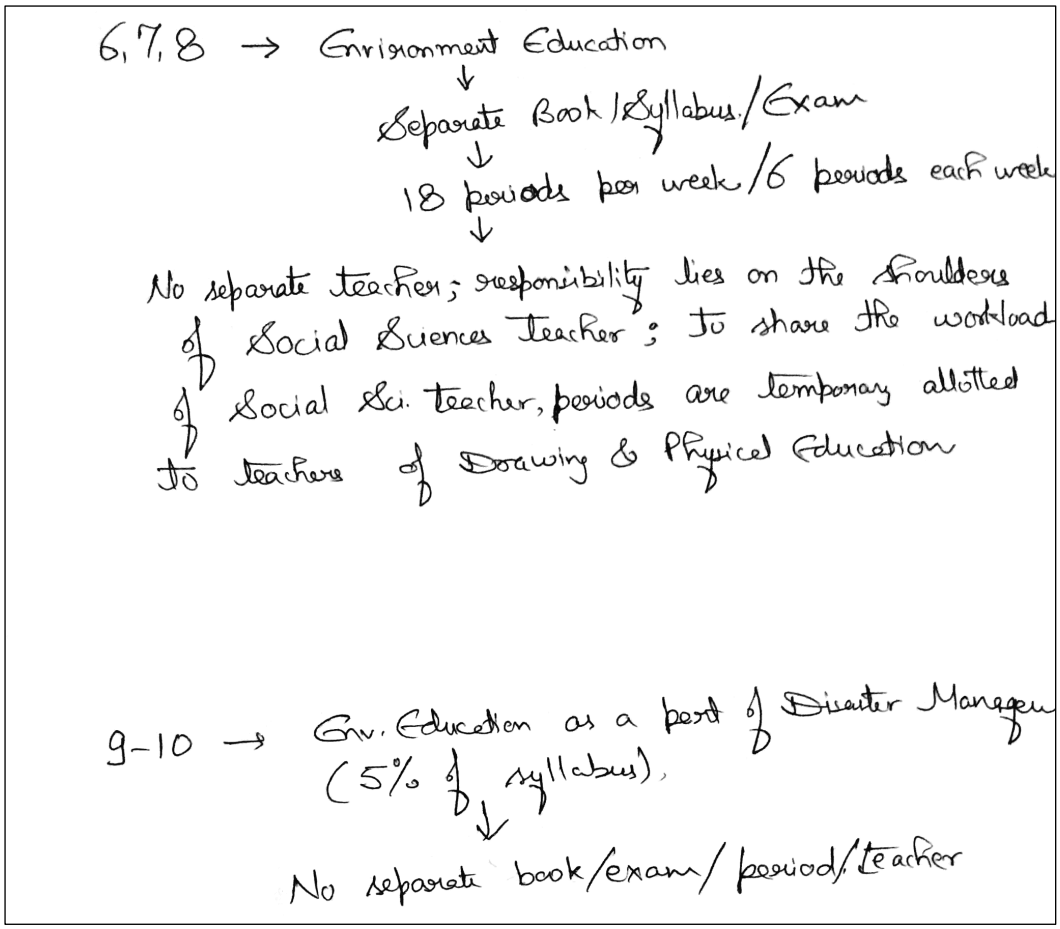

Figure 59: Pranay's notes about the practice of teaching environmental studies in Pashulok[37]

reflected both in their shying away from controversial subjects and in the way environment-related subjects are dealt with when they enter the discussion. For example, in *Looking Around* (NCERT, 2008), the government-designed textbook for 5th-grade environmental studies, only one chapter out of 22 deals with fossil fuels; most discuss basic concepts of natural science and focus on observation of the environment.[38] Chapter 12, 'What if it Finishes…?' considers the finite nature of fossil fuels but makes no mention of climate change, or of any environmental consequences of the world's dependence on fossil fuels.[39] It therefore would be unfair to blame

[37] Pranay's notes refer to the way the subject was taught to different classes. On the top, he addressed standards 6, 7 and 8, in which environmental studies was a separate subject (but, as his notes show, this had little impact on how much importance is attached to it by the school). On the bottom, Pranay writes that in standards 9 and 10 environmental themes were dealt with as part of the disaster management subject.

[38] They include 'A Snake Charmer's Story', which 'look[s] at the close relationship between animals and human beings' (NCERT, 2008, p. vi) or 'Sunita in Space', which 'engages with the challenging concepts of the 'shape of the earth' and 'gravitation' using children's intuitive ideas' (NCERT, 2008, pp. vi–vii).

[39] It conveys much of its content through a conversation between children and their uncle:
***Divya**: Is petrol going to finish? The poster said that petrol is not going to last forever.*

the teachers at Seema Primary for the kind of environmental studies the school offers.[40] Ultimately, deemphasising environmental studies reflects the lack of political will in India to turn schooling into a force critical of the government's unsustainable policies.

During my time in Pashulok, I was not allowed to observe any environmental studies lessons. The reason first given me was that the teacher was self-conscious about being observed; later it became apparent that, even though the subject was allocated slots in the school's timetable, they were usually filled with other activities such as reviewing for exams in subjects perceived as more important. Radhika observed that grades for environmental studies were not included in students' final results, which was the reason they were uninspired to participate in the subject. 'When we know we aren't going to gain anything from it, then why will we study such a subject? We will only study it if we have self-interest. Children will study it if they know it is compulsory and there is importance of the subject and they are going to get jobs'. Here, the environment was a form of instrumentality, something not to be taken

***Uncle**: It does not get made as fast as we take it out. It takes lakhs of years for it to be formed under the earth. […]*
***Divya**: Electricity can be used to run vehicles. I have seen an electric bicycle.*
***Abraham**: We will have to do something. Or else, how will we travel when we grow up? […]*
***Manju**: See, only one or two people are sitting in these cars. Why doesn't everyone use a bus?*
***Abraham**: That will save petrol. One bus can carry many people.*
***Manju**: When I grow up I will invent a car that runs on sunlight. Then we won't have to worry about it getting finished. We can use it as much as we want!* (NCERT, 2008, p. 113)

This exchange suggests two solutions to the future shortage of oil: individual self-restraint and technological innovation. These ideas resonate with the strategy for highly advanced neoliberal sustainable (post)colonial development examined in Chapter 4, and they contain no acknowledgement of historical responsibility or planetary stewardship, nor do they encourage pluralistic dialogue. They reflect the state's neoliberal political economy that revolves around individualisation, capital gains and innovation—three of the factors that brought about the kind of malign Anthropocene in which the world finds itself.

[40] Apart from government syllabi and textbooks, the ways environmental themes are dealt with are part and parcel of the cultural landscape of schooling in India at large, and in Pashulok in particular, which is marked by a high degree of teacher bureaucratisation. This subject also came up in my interview with educators at CEE during my pilot study, one of whom observed that 'the teacher needs to do many other functions than just teaching' enumerator in census, giving vaccinations, at elections checking whether number of people in a household matches government records . . . If you say they have 100 per cent time, I think 40, 50 per cent goes into the admin tasks so which means they are just left with 60 per cent'. In addition, the education system's focus on exams and tests dictates that only subjects that are assessed be given attention by teachers. The overloading of teachers with non-teaching responsibilities (including paperwork or even tasks completely unrelated to education, such as supervising local elections) also means that their day-to-day working life is too busy, and any 'opportunity to relax' is most welcome in such a situation. (It is possible that my observation of the high workload was related to the ongoing local elections at the time of my fieldwork, in which teachers played multiple roles. A different view is often expressed in the literature on Indian schooling—that, on the contrary, government teachers are absent, unaccountable and often simply do not work; see, e.g. Vasavi, 2003).

seriously since, according to this version of the myth of meritocracy, it had no impact on the children's futures.[41]

This is consistent with the view that formal education is a path to economic development on an individual and a societal level that has been identified in the literature (Kumar, 2005; Sriprakash, 2016). Indeed, since the economic reforms of the early 1990s, India has experienced unprecedented (K. Basu, 2004; Panagariya, 2005) if uneven (Datt & Ravallion, 2002; Kohli, 2006) economic growth, and the entrenchment of a highly advanced neoliberal regime (Harvey, 2007; Patnaik, 2007; Walker, 2008) that promotes a cultural imagination of the society firmly rooted in West-centric, consumerism-driven modernity (Ganguly-Scrase & Scrase, 2008). As Sriprakash argues, this has profound consequences for education, especially in rural areas: 'Where does this leave the poor rural child? She is largely absent from cultural narratives of India's economic growth in terms of her linguistic, class and caste locations. The seeming irrelevance of her rural livelihood to the advancement of the nation's knowledge economy further underscores her marginality' (Sriprakash, 2016, pp. 153–154). Since rural children from poor families are generally constrained to public education and unable to access private schools, Sriprakash continues, 'she also fails to live out the fervent aspiration for upward social mobility to which stories of both individual and national progress are attributed . . . Being placed so firmly outside normative citizen-subjecthood, the "poor child" is positioned as a governable subject in need of reform'. Underpinning the myth of mobility and the postcolonial logic of governance are the ideoscapes of depoliticisation, the currents of history that turn aspiration into a commodity and schooling into a homogenising tool for social engineering. But, unlike many attempts to turn ideology into reality, these ideoscapes owe

[41] The assumption operating here seemed to be that, through hard work, the children will be able to attain a materially higher standard of living than their parents. Given India's highly stratified education system and Seema Primary's position near the bottom in terms of education quality, it is unfortunately unlikely that the kinds of occupations students would imagine for themselves (doctor or engineer) would be available to them. It can be said that this system was based on peddling a lie of a nonexistent meritocracy.

much of their strength to a 'rule of nobody' (Arendt, 1970) in which bureaucratisation turns us into passive agents of anthropocenic slow violence.

On the school level, the imagined (and real) outcome of such a reform is instilling self-interest as the driving force behind learners' efforts, a sentiment echoed in Gitika's observations. Such an ethos seemed to be embraced by Seema Primary, which took pride in stories of students who went on to find employment outside of the community, a sentiment expressed to me by several teachers and reflective of India's project of self-development that places the 'poor child' in philanthropic spaces of 'development'. There was no recognition of a debt of sustainability owed to future generations, or of the state's debt to help students obtain their constitutional right to a 'clean environment'.

Given the lack of environmental studies in Pashulok, Seema Primary offered to run one or two 'demonstration' lessons for me to observe—an offer I refused, as it was clear these would be lessons for show rather than a representation of the nature of schooling for oustee children in Pashulok.[42] As my fieldwork overlapped with the exam preparation period, there were no genuine environmental studies lessons taking place, and I was therefore unable to examine the content of these occasional lessons. A picture started to emerge, however, after reviewing the textbook and talking to teachers about which of its themes they focus on in lessons. In Radhika's words, 'school just tells the children to keep the city clean, not emit carbon, make minimum use of cars, and travel by cycle or walk, which will help the environment and their health . . . The schools encourage the children to plant trees and we have tree-planting days'. Action here comes to signify a predefined pattern of behaviour rather than the outcome of pluralistic politics (echoing the slogan on the school wall, 'Save Trees, Save

[42] A 'show' lesson could be seen as a narrative of power expressed through culture and might be of value to an ethnographic study. However, participating in such an exercise could have complicated my ability to build trust with the students, as it could have positioned me as affiliated with the discipline-enforcing teaching staff. It therefore seemed too risky to do this in the early stages of my fieldwork, and the students were preparing for exams by the time I left, at which point arranging such a lesson was no longer an option.

Environment, Save the Earth', as pictured in Fig. 60), just as morality is reduced to ticking a check next to the 'planted a tree' box.

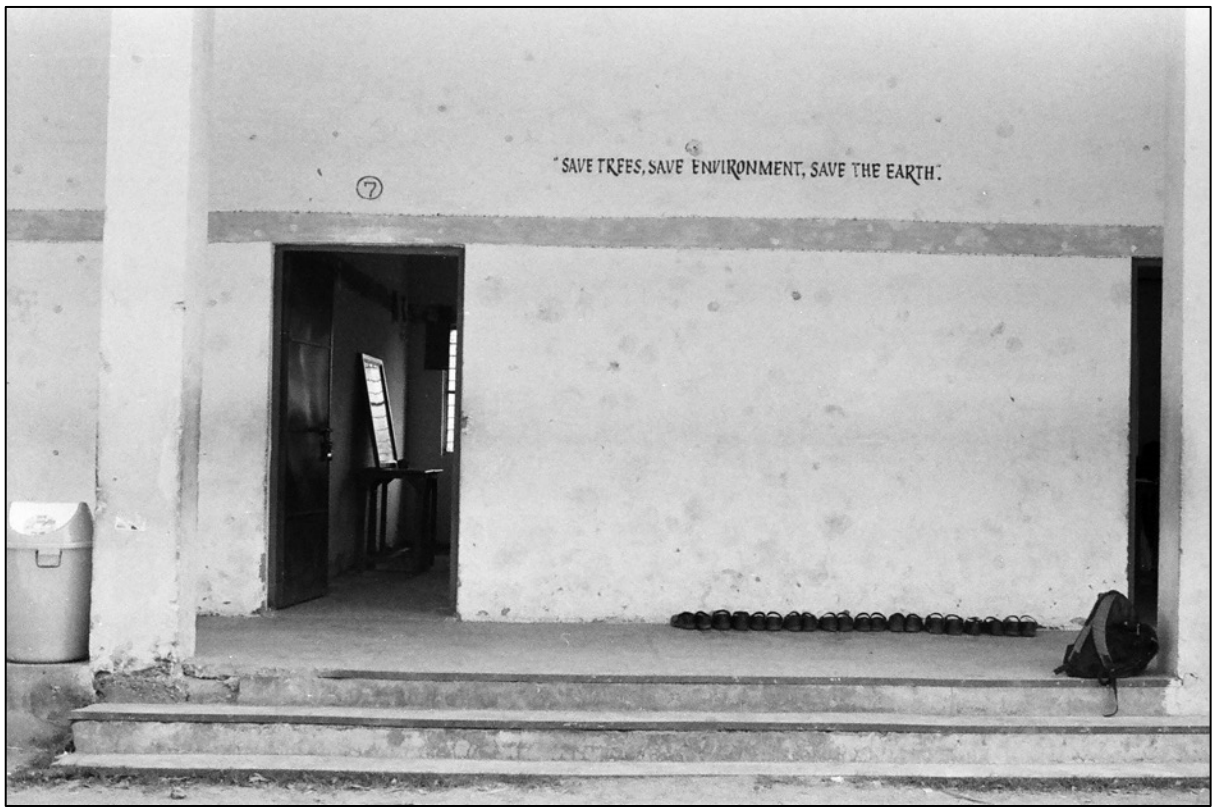

Figure 60: An environmental slogan on a school wall in Pashulok[43]

The history of India's education system offers further clues to the origins of this depoliticisation. The Indian state failed to fulfil the constitutional promise[44] of education for all children after Independence and, despite many initiatives over the decades, continues to fail to the present day.[45] By making environmental studies compulsory in a country where much

[43] Photo courtesy of Sparsh Ghilidiyal, who translated for me at some of the film workshop sessions.

[44] This constitutional commitment to universal quality education has been echoed in a number of policy milestones over India's 70 years of independence, including the constitution, the Kothari Commission of 1964, the National Education policy of 1986 and its 1992 amendments, and the Right to Education Act of 2009. While the sheer number of children in India makes this a difficult task, the successive governments' lack of commitment to the goal of universal quality education is arguably among the main reasons for this failure.

[45] According to Pratham's Annual Status of Education 2018 report (ASER), only 27.2 per cent of Standard III pupils in rural Indian schools can read at Standard II level (up from 21.6% in 2013). By Standard VIII, 27 per cent of pupils are still unable to read at Standard II level (ASER, 2019). Only 27.8 per cent of children in Standard V were able to perform simple arithmetic. While these studies are potentially problematic in that they view education through a narrow prism of mainstream (neoliberal) development policy performance indicators, they highlight the inequality within India's education system. Millions of Indian children remain out of school, and many of those who do attend are faced with inadequate schooling quality. Further evidence of this comes from the field of comparative education. For example, using Young Lives data to compare primary education outcomes in India and Vietnam, Rolleston and James concluded that 'low levels of quality, efficiency, and equity in basic

of the education discourse revolves around bringing children into school and boosting literacy and numeracy rates, India ostensibly decided to tackle, on a mass scale, perhaps the hardest task ever to face a schooling system anywhere: educating for the Anthropocene.[46] Given this context, it is perhaps not surprising that the subject of environmental studies operates as a state lie, a deception at the cost of the future, a practice that construes children not as thinking but merely as behaving human beings, contributing to the 'death of politics' in an Arendtian sense (Kateb, 1977, p. 156).

One reason for these continued deficiencies is a lack of funding for education. According to J. B. G. Tilak, viewing education as a public good and a human right 'is not ingrained in the minds of our union or state government functionaries, particularly the economic and educational policymakers and planners' (Tilak, 2009, p. 70).[47] As Rao, Cheng and Narain (2003) note, the Indian state lacked an integrated approach to primary education after Independence and only committed to this agenda more seriously from the 1980s onward. Although new policy initiatives such as Operation Blackboard took off during this time (Dyer, 1996), budgetary allocations remained insufficient and debate about the 'public gap' in education spending continued to rage through the 1990s and 2000s (Shariff & Ghosh, 2000).

If the environment is low on the agenda, and if schooling promotes the individualisation of environmental responsibility, what messages do students receive about development? As the idea of development is dealt with in a number of school subjects (lessons I was not allowed to

education' (2015, p. 301) are among the main reasons education outcomes in India are much poorer than in Vietnam.

[46] This is likely a genuine goal in some quarters—the judiciary has proven itself to be somewhat immune to being swayed by ideological currents of bureaucratisation, statist developmentalism and Hindu nationalism that shape the Indian state, as discussed in Chapter 4. This is reflected, for example, in the Supreme Court's decision to establish environmental studies as a compulsory subject in elementary schools. For a comprehensive review, see Sathe's (2003) monograph about judicial activism in India.

[47] In 1951, the Indian state spent a mere 0.6 per cent of its GDP on education; by 1971 it was spending 2 per cent (Mangla, 2017). In 1966, the government-appointed Kothari Commission criticised what it saw as inadequate spending and recommended that 6 per cent of GDP be allocated to education. This suggestion, along with many other proposals, went unheeded by the government (Tilak, 2007).

observe),[48] no clear answer emerged from my fieldwork, but interviews with teachers suggested an adherence to what might be called the mainstream narrative of development in post-Independence India: 'They [students] learn about the development of India, about what the country has made in the era after Independence but they don't treat environment as an issue, they [the government] glorify the development in the textbooks'. According to Pranay, Tehri Dam is consequently 'the symbol of development, not a symbol of environmental hazard'. None of the data contradicted this image. An uncritical admiration of the state's project of development, in which supposedly inclusive economic growth blends with nationalism, permeated my interactions with students and teachers alike. As Arvind told me, 'quick and fast' development necessitates building dams, since they help with electricity generation and irrigation. 'The state benefits financially from it. We can't oppose the Dam because they [sic] are the pillars of development'. While these views seemed to represent a consensus among the educators at the school, I encountered at least one teacher who was conflicted about spreading this vision of development.[49] She shared her doubts about the benefits of Tehri Dam and her belief that the oustees had genuinely suffered as a result of resettlement, something she believed should have been taught as part of the curriculum. When asked whether she shares these views with the students, however, she admitted that as a government-paid teacher, she does not feel comfortable doing so.[50] Schooling here, it seemed to me, suppressed environmental knowledge and promoted a kind of 'practiced ignorance' (Arendt, 2006) about the tragedy of the dam and of the planet.

[48] These subjects included science and social science in Class VI and above. The reasons why I was not allowed observation at Seema Primary seemed multiple and complex. The teacher of these subjects repeatedly said she was 'not ready' to be observed. The headmaster also seemed concerned, which I later learned had to do with the fact that environmental studies existed primarily on paper, something the school officials did not want me to find out. Pranay revealed this to me toward the end of my fieldwork.

[49] Given the sensitive nature of these comments, I am not including any additional information about this particular teacher nor am I using a pseudonym so that these remarks could not be linked to this teacher's remarks (if any) quoted elsewhere in the thesis.

[50] From these comments, it was clear that—whether or not any genuine censorship by the government was operating in Pashulok—at least one teacher would self-censor her views about the dam out of fear of possible repercussions.

5.1.2 'We are not products of a total institution'

While my findings suggest that there was little hope of schooling for the Anthropocene at Seema Primary, the school's depoliticising tendencies did not uniformly manifest in learners' perspectives on the environment. Through a variety of visual methods—chiefly in films produced in the workshops I taught at Seema Primary but also in mind-mapping exercises and drawings of imagined past and future worlds—the learners' work reflected ideas about the environment that pointed to underlying political imaginaries unseen in the pedagogic processes. If these films and drawings could speak on behalf of their authors, they often would say, 'We are not products of a total institution'.

Figure 61: Students brainstorming topics during an observational filmmaking workshop[51]

The process of making observational films with children helped me grasp the idea that in doing ethnographic fieldwork my aim was not to be an impartial observer engaged in 'writing culture' as expressed through the words and actions of my interlocutors (cf. Rabinow,

[51] The adult in the photograph is one of the translators who helped me with the observational filmmaking workshop.

2007). I was one of my study's interlocutors and the process of making films, perhaps more than any other element of my fieldwork, drove home my understanding of research as life in and of itself. This became evident during the process of choosing the subjects of observational films the children were making at both sites. As the learners were aware that my research was broadly focusing on the environment, they tried to come up with topics that would be helpful to my work (Fig. 61), even though I was not encouraging them to move in any particular direction and gave them a free hand in their choice of topics, as long as they came up with subjects that could be filmed. Rather than seeing the influence of my research agenda on the study participants as skewing the data, I realised that it was actually a strength of the methodology.[52] The children were interpreting the concept of the environment in ways that differed from my definitions (e.g., linking it to the concept of purity and its religious connotations).[53] Apart from learning filmmaking skills (Fig. 62), we were engaged in a process of translation in which the learners were relying on a range of knowledge resources available to them both in and out of school to interpret what they perceived to be my agenda, which exposed me to these resources and to the ways students accessed them in the process. Schooling, it became clear, represented only one of a number of learning spaces for these young people. As a result, they were often engaged in a dialogue with the high-Anthropocene ideologies prevalent in the school curriculum rather than passively absorbing them.

[52] Such a perspective would be based in the idea of ethnography as a form of positivistic research, which would be incompatible with the aims and ethos of my project.

[53] This was visible, for example, in the detail with which they observed and filmed *aarti* rituals performed on the banks of the Ganges. As the children explained to me, the intention behind this was to point to the contradiction between the rituals of worship local people engage in and the sewage and trash with which they pollute the river on the other.

Figure 62: Students practicing framing a shot during a workshop session

One of the key themes that emerged out of the filmmaking workshop was the importance to the young people of intergenerational knowledge transfer outside the confines of the school. In 'Ganga, the Life-Giver', the film produced in the workshop, many of the people filmed were considerably older than the students. When I asked the Indian team why they focused on older people rather than filming their peers, one student replied, 'Because this gave us a different perspective and knowledge about other people. We have information about our family and their daily routine, but we didn't know about the outside world'. This was, however, not merely a question of curiosity; they deliberately attempted to turn the film into an opportunity to connect with other generations—without any conscious encouragement from me.[54]

[54] After all, at the time the films were being made, I myself was not aware that intergenerational knowledge transfer would become an important theme in my research. The learners did this in spite of the obvious difficulties in engaging with people beyond their immediate social circles. They often shared with me that they were shy and found it difficult to approach strangers for permission to film them. Intergenerational dialogue clearly mattered to them a lot.

One of the best examples of this was a scene in ‘Ganga’ in which the students filmed a group of older men who were sitting on the riverbank, having a conversation about how pollution changed over time (Fig. 63). Here, the children were instinctively constructing a temporal arc through the medium of film, linking memory of the past state of the river with the present and the future. In another scene, one of the students is shown talking to older men walking along the river and asking them ‘What was it [the Ganges] like when you were younger and how has it changed since then?’ (Fig. 64).

Figure 63: Older people in Pashulok discussing the polluting of the Ganges

Here, too, the children connected the present with the past in an attempt to reshape the future, which made the film a medium of intergenerational knowledge transfer.

Another important element of the film—a visual exploration of religious rituals performed on the river banks—also reflected an interest in learning how adults, rather than the children’s peers, related to their environment. Apart from scenes depicting *aarti,* worship rituals performed on the river banks, the students filmed two adult men feeding *atta* (dough) to the fish (Fig. 65). After observing the men through the camera, one student enters the frame

and joins them as they explain to her how to feed the fish—a moment of intergenerational learning captured on camera.

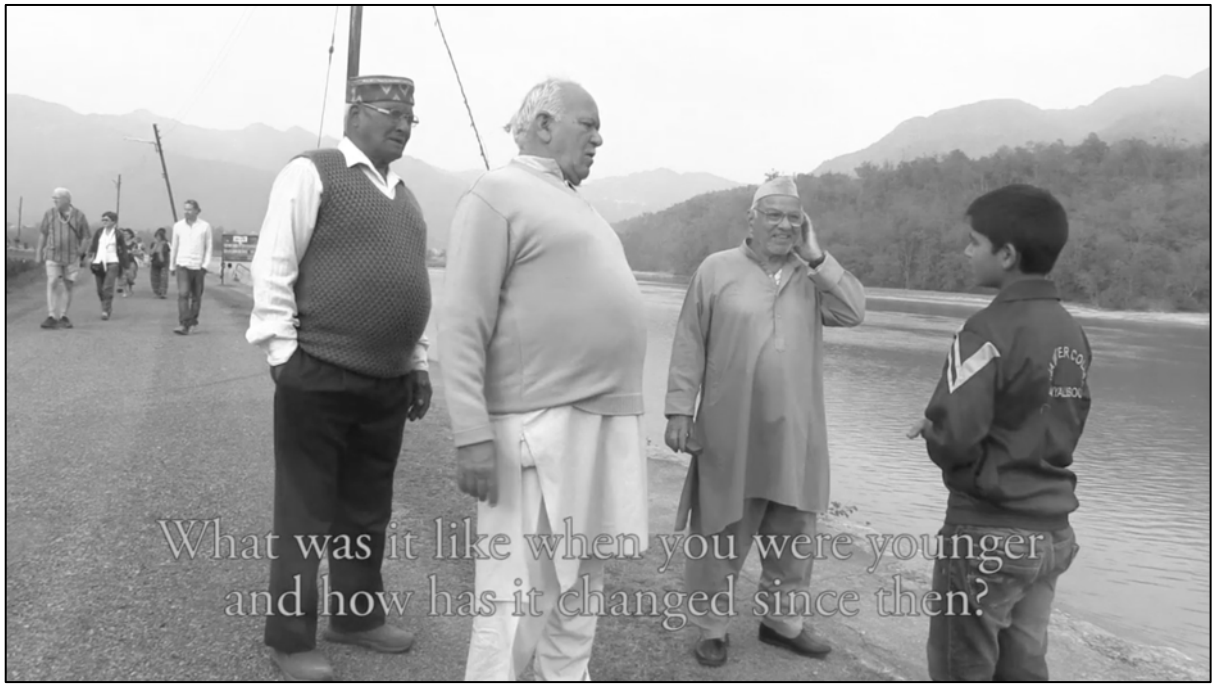

Figure 64: A student asking elders in the community to talk about environmental change

Figure 65: Feeding atta to the fish on the riverbank in Pashulok

Like the scenes previously discussed, the religious rituals were not merely spectacles or opportunities for the students to learn; they were intended to bridge the past with the future through the medium of the film, as Ashawl, a student involved in making the film, explained to me: 'We wanted to show what happens with Ganges from morning to night. In the morning people throw all kinds of things in the river and then in the evening they offer prayer to the river. We want to tell that only after you clean the river will there be any benefit of praying to it'. This explanation reflects the students' own concepts of temporality in the environment and their recognition of the complexities and contradictions of prayer and pollution. The juxtaposition in the film of shots of sewage pipes and trash floating in the water and religious rituals was to serve a pedagogic purpose and contribute to solving what the students saw as the problem of the sacred river becoming polluted. But the students went beyond critique and holistically explored the contradiction between worship of the Ganges and the instrumental value attached to the river by some of the local residents. For example, in one scene an older man interviewed by the students thought back to times before the dam was built, noting that the water level in the Ganges had dropped significantly since the opening of Tehri Dam. These perspectives contrasted sharply with the developmentalist narrative taught to these children at the school in Pashulok, but their inclusion in the film pointed to the children's thirst for a different kind of learning rooted in intergenerational knowledge transfer which enabled the children to shape the future based on their understanding of the past.

It was not just in the context of observational filmmaking that children at Seema Primary expressed views about their environment that reflected a high degree of understanding of the temporality of slow violence. In focus groups, during both my principal fieldwork in 2017 and a follow-up visit in 2018, the children drew pictures of their imaginaries of the environment 100 ago, and 100 years later. We then gathered in small groups to talk about what

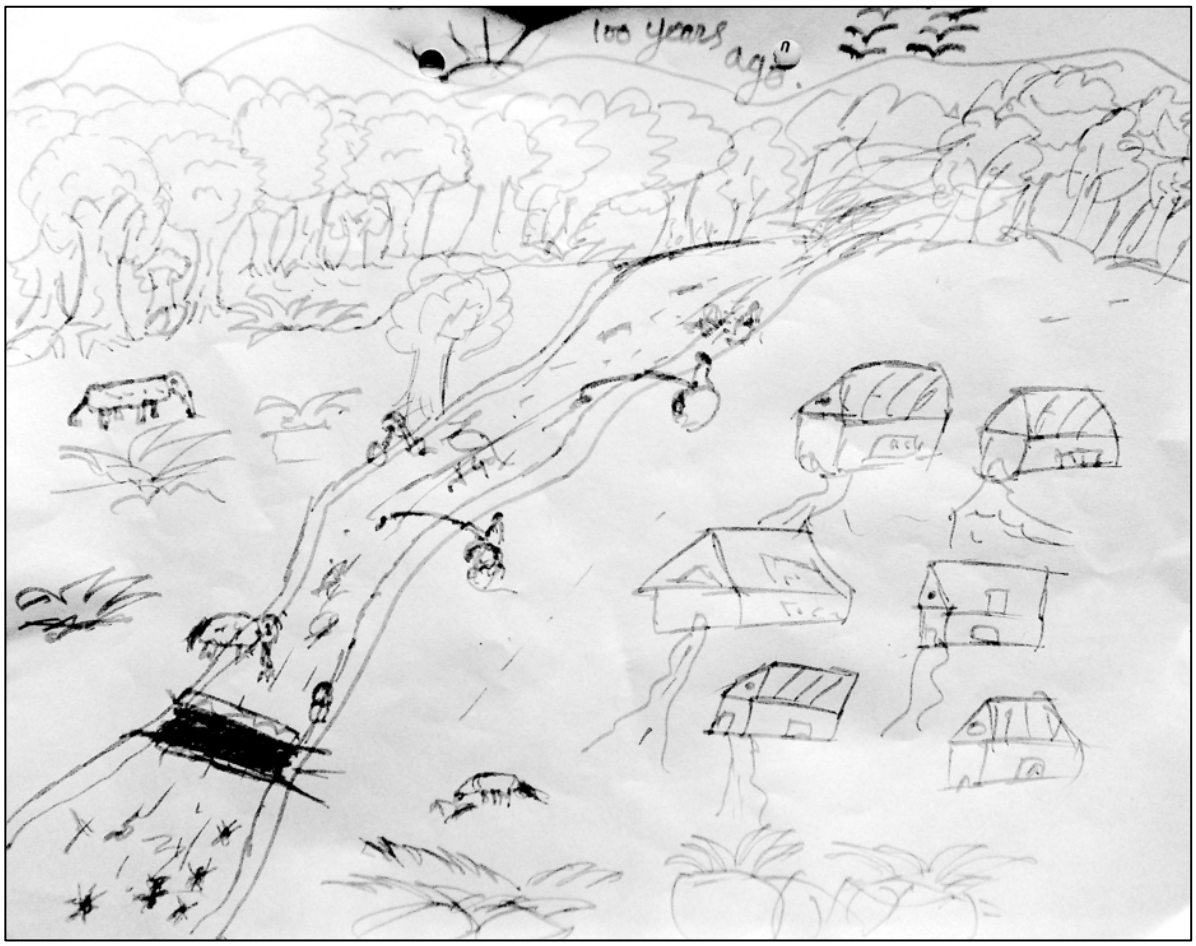

Figure 66: Pashulok 100 years ago, as imagined by local students

they drew and why they believed this was how the environment might have looked in the past and may look in the future. These focus groups suggested that many of the students believed the past generations were better stewards of the environment than the current and probably future generations, as reflected in the state of the environment. Drawings of imagined past worlds were often full of trees (Fig. 66), whereas those of the future lacked vegetation. Humans were present in the drawings of the past but their activities took up little space; the natural landscape dominated human-made landscapes. In the drawings of the future, however, few natural elements could be seen. Blocks of flats, factories, roads, vehicles and planes took over as the predominant features of the drawings, with natural environs reduced to clouds and the sun (Fig. 67). It was as if the children instinctively understood the Anthropocene and were anticipating the acceleration of time toward a future in which only the celestial bodies remained

beyond human control, with the earth itself completely subjugated. Violence and the breakdown of social structures were also visible in the drawings, with one child even writing 'gang' into the drawing to indicate the anticipated rise of crime in a future dystopian world (Fig. 25).

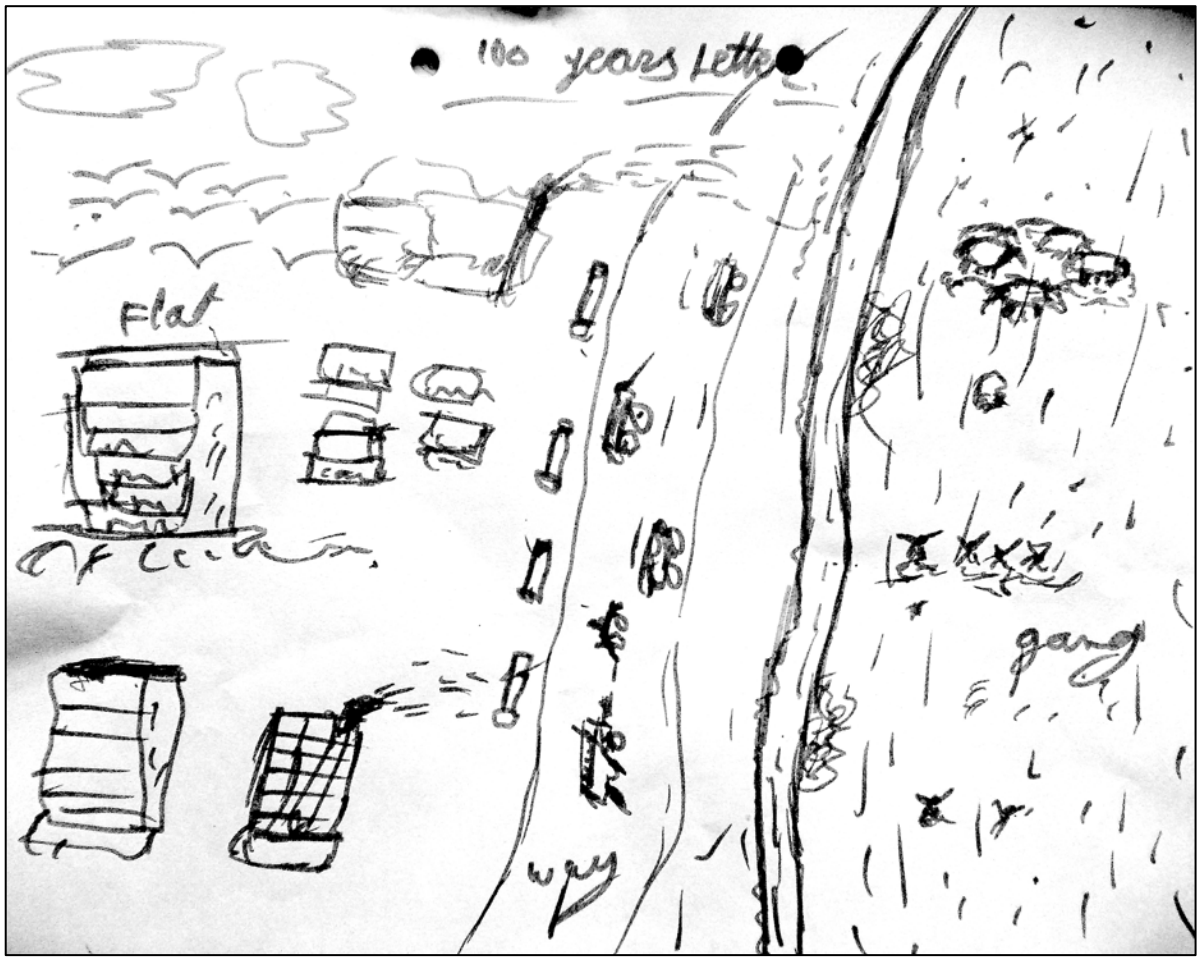

Figure 67: An imagined future in Pashulok

There was a poetry to these visual expressions, marked by foresight and an almost instinctive need to communicate across time and space with people the children would never know. A temporality of empathy, the fodder for building temporal arcs linking our present with the past and the future, presented itself in the film and the drawings, encompassing non-human entities in its imaginative powers. These children were demonstrating their engagement in what is at the root of ESE—the cultivation of political imaginaries—thereby proving that they were

capable of much more than being docile subjects waiting to be brought into the fold of mainstream life in a 'developed' India by the state's education system.

5.2 Eclipsing slow violence in a South African school

Just as Pranay was crucial to my understanding of the cultural landscape of schooling in Pashulok, Aruna became my key informant in Wentworth. I met Aruna, an Indian-origin English teacher and head of the social sciences department, through an informal network of self-described environmental educators in Durban.[55] Her school was adjacent to Engen, the largest oil refinery in South Durban (Fig. 68), and she indicated that the school was active in environmental education and would be open to hosting me. At our first meeting, I had a sense that Aruna was not originally from South Durban, and it turned out she had moved to Durban from a farmland area in the foothills of the Drakensberg mountains. 'I think the first thing I noticed when I walked into this place was the sky. There was no sky, it was just a thick layer of smoke. I was quite shocked,' she told me, remembering her first days in Wentworth. It was perhaps due to her multiple frames of reference that Aruna saw the local children as full of potential compared to children from more privileged areas.[56] In one conversation between lessons, as we were sitting in the teachers' lounge and listening to the sound of children queuing up for their government-sponsored lunches in the adjacent canteen, she told me that 'the affluent child's interest is academic . . . The kids here, they are not so academically inclined again because I think the local community also speak more—they are more politically inclined, they're watching TV politics, they're talking about what is happening in the country, they talk about drugs'. As a result, children from impoverished areas like Wentworth are more politically

[55] Given that Durban is home to many South Africans of Indian origin and that a number of the teachers at Durban South Primary fell into this group, I am using mostly Indian names for teacher pseudonyms in this section. When a teacher was not of Indian origin, I used a non-Indian pseudonym.
[56] She expressed this perspective in our conversations, but in light of this belief, I often struggled to make sense of her teaching practices. As I discuss later in this section, some of these practices were similar to Pranay's.

and socially aware. 'Affluent children read about drugs, but this child here has experienced it, they have seen it, they have felt it, they know what it is. So I admire these children, I really admire them', Aruna told me. It was rare to hear such admiration for the students. The only other teacher who shared a similar viewpoint with me was Megan, on the morning we talked about Johny's drawings.[57] Most educators I spoke to during my fieldwork focused on the challenges children faced and what they perceived as a lack of motivation or an inability to learn. As with Pranay, I initially thought of Aruna as an 'enlightened' teacher, an outlier in a system that appeared to crush hope and human potential. That is perhaps why I was surprised when I observed her in the classroom. Just like Pranay, children seemed to treat her with both respect and fear; they often kept their eyes down and stuck to the opposite side of the corridor when passing her. This was, I thought, surely at least in part a manifestation of a wider structural landscape, the harsh environment in which students here lived, the many long-standing deprivations (in family support, in food and clothes, in safety), and the culture of deference to teachers. Observing Aruna in the classroom gave me further cues: frequently raising her voice, shaming students (she would call them 'dizzy', which I construed to mean mentally disturbed), and often sending pupils out of the classroom, she seemed to maintain her authority through fear.[58] But this too appeared to be structural, for it was not clear what the alternative was in this environment; like Pashulok, it seemed that the realities of a township school compelled teachers, even those who genuinely cared about their students, to resort to

[57] As discussed in the second methodological dilemma preceding chapter 4.

[58] I noticed, however, that an implicit understanding seemed to exist between Aruna and some of those she was addressing with such labels that the labels were humorous and not be taken seriously. For example, in a scene in 'Pollution Kills', one of the films produced by students at Durban South, the students filmed an oral examination of a student Aruna conducted in front of a class in which the student tells the class about solutions to an environmental issue she chose. Aruna is dissatisfied with the length of the presentation and berates the student, calling her 'dizzy' in front of the class. This prompts laughter from the student and the class, and while Aruna does not join in, she also does not seem bothered by the laughter. I initially thought this scene might have been influenced by the presence of the camera, but I later observed situations where Aruna would use a derogatory word and the students would not try to hide that they found it funny. There were other situations, however, when there was no doubt her words were meant seriously and were received by the students in question as such. Aruna's somewhat eccentric vocabulary sometimes seemed to play the part of 'tough love', at other times the part of a 'total institution'.

Figure 68: Wentworth school's basketball court blends into South Durban's industrial vista

extreme measures in order to maintain 'discipline', which they saw as a precondition of education.

Wentworth's parallels with Pashulok ran further, suggesting that here, too, educating for the Anthropocene meant obfuscating and tacitly encouraging continued enactment of (rather than recognising and acting to prevent) slow violence. Many of the themes visible at the Indian site—economic starvation of schools catering to the underprivileged,[59] the deprioritisation of environmental concerns in the schooling process despite ambitious policy

[59] Perhaps the strongest voice I encountered during my fieldwork on this issue was that of Oupa Lehulere, the head of Khanya College in Johannesburg which is perhaps as close as one can get to an 'activist school' in South Africa. The following is an excerpt from the transcript of our conversation:
Peter: 'Some people may argue that the fact that the South African government is actually spending quite a lot of money on education compared to . . . any other governments, could indicate that there is some commitment to using education to sort of make the playing field a little more equal. How would you respond to that?'
Oupa: **'**Well, because actually they don't. One must look at the amount of money spent and correlate them to the social divisions in society, one must actually say the South African government does spend money, I mean they, it has the best medical schools in the world. Yes? But those medical schools are not the medical schools that serve the working classes and the poor . . . I mean the question is not how much pot of money is there, the manner of its expenditure and the underlying social choices that are made in its expenditures. I mean so obvious is this problem that most of the teachers that teach in these townships schools, their kids don't go to township schools, they go to schools in the suburbs.'

goals set by the government, a pro-development curriculum, the individualisation of responsibility for the environment and a preoccupation with discipline—were also prevalent in Wentworth, as was the bureaucratisation of teachers and the entire schooling process. An extract of an April 2017 fieldnote entered in my field diary after my third visit to the school is quite revealing:

> *- meeting with the staff; introduction of research project, with emphasis on the fact that I am not here to evaluate and that all observations will be kept confidential*
> *- no questions asked by the staff*
> *- overall a sense of passivity from the staff, and also slight difficulty in communication: for example, when looking at individuals when speaking, all always changed the direction of their gaze*
> *- after staff meeting, short meeting of the enviro committee, only a few minutes long, focused only on logistical issues around getting permissions from parents for students to participate in activities etc., making plans for the new term in terms of cleanliness/recycling at school etc.*
> *- Aruna commented afterwards that the staff will do things only if asked to (individually) but will not actively volunteer to do things (like participate in a study)*
> *- she also noted that in May the school will undergone a 2-week inspection from the local education authority and that everyone at the school is nervous because of this*

These notes point to multiple layers of bureaucratisation and their impact on the teachers' initiative, motivation and engagement with politics.

But further factors got in the way of educating for the Anthropocene here, including the changing student demographics due to the post-apartheid mobility of people of colour (M. Hunter, 2015, 2017), which in Durban led to what Mark Hunter, a Canadian scholar of education in Durban, described to me in an interview as 'the death of the local school', and a corresponding lack of student motivation to engage with environmental issues affecting their school. In South Durban, greenwashing—sponsorship by local industries that, according to

some of my informants, led to the silencing of schools and their lack of participation in activist struggles—became a further depoliticising force.[60]

However, I also encountered glimmers of hope in South Durban in the form of outlier teachers who brought activist agendas into their classrooms. In some cases, entire schools participated in demonstrations, such as against the demolition of the Clairwood Racecourse, which took place shortly before the beginning of my fieldwork.[61] 'There were public gatherings which we attended. I delivered an address at one of the public gatherings and then we stood with placards—a placard demonstration, outside the racecourse', the headmaster of one South Durban primary school told me, conjuring up images in my mind of fifth- or sixth-graders quietly holding banners outside an industrial construction site. I found it hard to imagine that the community was so desperate to preserve the racecourse that an entire school would participate in a protest, yet it sounded like an impressive feat of courage for the administrators, teachers and pupils to organise such a demonstration. It felt paradoxical, but I was, in these moments, the outsider looking in.

Despite these glimmers of hope, I observed many similarities between Seema Primary and Durban South when it came to the gloomy reality of the imprints on schooling of exclusion, inequality, neglect and elitist policies. This seemed to have much to do with the similarities in the schools' contexts. The gap between aspiration and delivery in the South African school

[60] While I did not come across evidence of greenwashing at Durban South Primary, headmasters and teachers I interviewed from other schools in South Durban shared stories of schools being prevented from speaking up against environmental injustices due to the sponsorship they received through the corporate social responsibility schemes of local industries. Since many of the informants who shared their views on greenwashing were also activists, I deal with this subject in detail in Chapter 6.

[61] The demolition of the Clairwood racecourse and building of a 'logistical depot' in its stead was a hot topic among local residents and activists during my fieldwork. The arguments put forward against the depot by the local communities included their concern with a lack of green spaces in South Durban that could be used as an emergency evacuation area in the case of industrial accidents; the racecourse was seen as the last plot of land in the area that could be used for this purpose. Another argument focused on the increased number of heavy trucks ploughing along South Durban's already congested roads. The community and the activists lost this fight and the construction of the depot went ahead, which caused great disappointment and distress to many of my interlocutors in South Durban.

system mirrors that in India. Although the former is much more generously funded,[62] the political economy of post-apartheid South Africa has led to a grossly unequal distribution of funding across the education system (Badat & Sayed, 2014; Engelbrecht, Nel, Smit, & Deventer, 2016). As a result, a disproportionate share of the resources ends up at the former Model-C schools that served white South Africans prior to 1994 and currently serve the privileged classes.[63]

The government has tried to tackle this educational crisis through a series of education reforms and changing curricula since the mid-1990s, including Curriculum 2005 (based on the idea of outcomes-based education) and the current Curriculum and Assessment Policy Statement of 2011 (CAPS) (Kanjee & Sayed, 2013). These curricula have been widely criticised (Cross, Mungadi, & Rouhani, 2002; Ramatlapana & Makonye, 2012). CAPS is seen as an educational programme reinforcing existing power relations and disempowering both teachers and students (J. Palmer & De Klerk, 2012), a course of study in need of decolonisation (C. J. Smith, 2018) and a policy initiative lacking appropriate initiatives for teacher training that would allow teachers to transition effectively to the new curriculum (Gudyanga & Jita, 2018; Phasha, Bipath, & Beckmann, 2016). The government not only fails to provide the children with a quality education, it also obfuscates this failure through artificially inflated pass rates that do not enable children to get a job and escape poverty.[64] This is reflected in the

[62] In 2017, the South African government spent 18.73 per cent of its budget, or 6.1 per cent of GDP, on education (UNESCO, 2019b)—the sixth-highest percentage in the world—which compares to India's 14.1 per cent of the government budget, or 3.8 per cent of GDP (UNESCO, 2019a). This figure, the most recent available for India, is for 2013, whereas the South African figure is for 2018. In 2013, the South African government expenditure on education stood at 19.17 per cent.

[63] As a whole, the system fails to provide even the most rudimentary education to a majority of children. South Africa scored at the very bottom in the 2016 Progress in International Reading Literacy Study—a test performed every five years since 2001 and organised by the International Study Center at Lynch School of Education, Boston College—with just over 20 per cent of fourth graders able to perform at or above the minimum reading proficiency level (UNESCO, 2018, p. 63). Twenty-seven per cent of South African 12th graders failed the National Senior Certificate ('matric') examinations in 2016, a figure that was even greater (34%) in the province of KwaZulu-Natal where Durban is located (Department of Basic Education, 2018, p. 24). These figures persist despite the exam's relatively low pass requirements: students need to score 30-40 per cent to pass the subjects for which they take the test.

[64] According to Mr. Naidoo, the principal of Durban South Primary, these successive reforms have in fact led to lowering the standards to obscure the failures of the education system: 'I don't know if I should be saying this to

country's sky-high youth graduate unemployment rate of 55.2 per cent as of the first quarter of 2019 (Statistics South Africa, 2019). The picture that emerges is one of a school system that treats different socio-economic groups very differently, subjecting the underprivileged ones to routinised, punitive schooling that gives children little in return for their participation.

Given these realities, it is not surprising that Durban South Primary—like several schools in South Durban—looks good on paper. The teachers claim that virtually no students drop out and almost all proceed to secondary school, making the school attractive to pupils from areas as far south as Umlazi and Lamontville, who at the time of my research comprised approximately 40 per cent of the student body (a figure that had risen steadily in previous years).[65] Up close, the picture is more complex. To start with the most obvious, the school occupies a temporary structure built in 1972 (the school's founding year) that has long outlived its expected lifespan and parts of which are not considered safe to use anymore. Situated near the Engen oil refinery, many students suffer from the polluted air. According to Mr. Naidoo, the school principal, more than half the students carry asthma pumps and teachers keep spares for the multiple medical emergencies that are anticipated (and reported) each year.

As I explored in Chapter 4, owing in large part to the ideoscapes of depoliticisation shaping the global, national and regional cultural landscapes in which the community is embedded, residents of the coloured township of Wentworth face many layers of injustice, from environmental racism to a lack of political representation. At Durban South, students are subjected to an involuntary confinement to a space of institutionalised liminality that not only prevents their upward social mobility but discourages them from perceiving themselves as political beings.

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you, that the department has also designed education such that almost educating with unemployment whereby they create ways of passing learners. Now they lower standards, for example maths for me should be at 50 per cent or high 40 per cent. But if you score 30 per cent, you are going to pass'.

[65] Historically, however, the school had exclusively served the coloured population of Wentworth, which changed after the fall of apartheid, opening up opportunities for black children from nearby townships to attend the school.

Despite the South African government's significant investment in education, Durban South Primary is one of many schools facing a precarious financial position. According to Mr. Naidoo, department of education funding only covers teachers' salaries for the school year and less than one month's operating expense; the rest needs to be raised from parents or donors. Fees are collected from parents, but compliance is typically low, with only one-fifth paying the full amount. Much of the school administrators' time is therefore spent on securing financing, leaving little space to deal with other aspects of education.

Another factor that constrains the school's ability to incorporate environmental themes into the curriculum is the death of the local school. In the aftermath of apartheid, schools that formerly served only certain racial groups, such as the 'coloureds' in Wentworth, were open to all, in theory. In reality, the racial mixing of students depended on parents' financial ability to send their children to schools outside their communities. In South Durban, through a sophisticated system of buses, taxis (Fig. 69) and other shared vehicles (M. Hunter, 2010), black students from nearby townships (Umlazi in particular) have become increasingly able to commute to schools formerly unavailable to them. During my fieldwork, I came across schools whose student bodies comprised more than 99 per cent black students, while only 25 years earlier the student population would have been 100 per cent Indian or coloured.[66] Mrs. Pillay, the Durban South vice-principal, told me, '[our school] is the most fortunate in that if you look at my total percentage of community, coloured versus the black, I would say we are 60-40. If you go to the other schools, I would say they're 90-10'.[67]

[66] As mentioned previously, I had the opportunity to briefly engage with two more schools in South Durban during my fieldwork; through interviews with community members, educators and activists in Wentworth, I learned about the situation at some of the schools in the area that I did not have access to.

[67] I found this comment peculiar, given that many teachers repeatedly stressed to me that many of the students commuting from Umlazi worked considerably harder than the local Wentworth students. The teachers often attributed this to the particular demographic of the commuting students; allegedly these pupils came from families that valued education, which is why their parents were not content with the local schools in Umlazi and sent their children further afield. My interpretation of Mrs. Pillay's remark was that she was not commenting on the differences between coloured and black students but regretted the changes schools in South Durban suffered as their student populations exploded, afterschool programs shut down and a sense of connection to the surrounding community disappeared—all points expressed to me by multiple educators at Durban South Primary.

Figure 69: Shared 'taxis' queueing up outside the gate at the end of the school day

I came to appreciate how much Durban South had suffered as a result of these demographic changes only after spending enough time with educators who felt comfortable opening up to me about their yearning for the past and their sense of lost opportunities and positive life experiences. 'We used to have concerts, we used to have sports, we were top of the range, we beat every school', Jane, a teacher who had taught at Durban South for over three decades remarked in a focus group. When the school exclusively served the local community, she recalled, a great variety of extracurricular activities took place on campus in the afternoon. This was no longer possible, as a large number of students got on a bus or taxi minutes after the last lesson of the day. I experienced this myself when I realised that half of the school would not be able to participate in my filmmaking workshop because the children could not stay on campus after school.

While it might appear that attending a school in Wentworth was a positive consequence of the end of apartheid for black children, I realised that the situation was far more complex.

Even as the state formally desegregated schools and opened up new opportunities for black students, it allowed the quality of education in schools taking on black children to deteriorate.[68] The death of the local school meant that many schools were no longer embedded in a community, which separated social and political struggles from the lives of the learners. South Durban became, perhaps more than ever before, a site of institutional liminality that promised upward mobility and an opportunity to obtain a superior education, even if it came at the cost of having asthma or thyroid cancer. It was as if the cloud of toxic air hovering above the school was drawing people in because it represented economic prosperity, rather than repulsing them because it represented death (as it did to me).

Given this backdrop, it was not surprising that the school did not aspire to bring up generations of activists or that perhaps it was, in Appadurai's (2013) words, beyond the school's collective 'capacity to aspire' to set such a goal.[69] Rather, what I frequently encountered in my interactions with educators was a particular conception of childhood in which politicisation would happen further downstream in children's education trajectories. The children were considered too young to understand politics, thus it was not the place of a primary school to educate them about environmental justice or historical responsibility. In Aruna's words, 'I think maybe primary schools are not involved a lot in these political and

[68] This was similar to the apartheid-era schools in black townships that had deliberately substandard levels of quality and performance.

[69] The lessons I observed while in Wentworth pointed in this direction. I wrote down the following observations during a 6th-grade social studies lesson in May 2017; they are fairly representative of most lessons I observed:
- history lesson on Portuguese exploration (B. Dias, V. Da Gama, etc.), teacher reading from the textbook throughout lesson
- he keeps saying 'have some respect, you just have to look inside and pay attention' (the class is very loud and does not seem to be respecting him at all)
- teacher reading text aloud from the textbook, kids mostly not paying attention, muttering heard in the classroom
- teacher then goes over exercises in the textbook accompanying the text he was reading aloud
- subjectively the lesson feels incredibly boring and disorganised, with the teacher adding very little
- then he asks classroom to go into independent work mode, a lot of noise/discipline issues ensue, teacher says 'I will wait for this rude class' and repeatedly hits the plastic chalkboard duster against a school desk, creating loud sharp noise, with the expectation that this would calm the students down
- at the end he comes to me and says 'My time is up here, sir'
- throughout the lesson he was walking back and forth from front to back, and asked the students to 'put their heads down' as he was leaving; the class did not seem to notice him leaving and no 'formal' end to lesson

environmental issues because the kids are far too young to even understand what an activist is, In Engen, for example, one primary school learner told me, "My dad works at Engen and he gets money and that's how we live"'. The reality of the South African education system is that many children never make it past primary school (Branson, Hofmeyr, & Lam, 2014) and those who do are unlikely to focus on environmental justice in their secondary schooling, where it is often not covered by the curriculum.[70] The primary school remains the key institution through which the state can cultivate (or constrain) the political imaginaries of future generations, but my findings from Wentworth suggest that, in the South African education context, it is set up to fail at this task.

5.2.1 The spectacles of fast violence

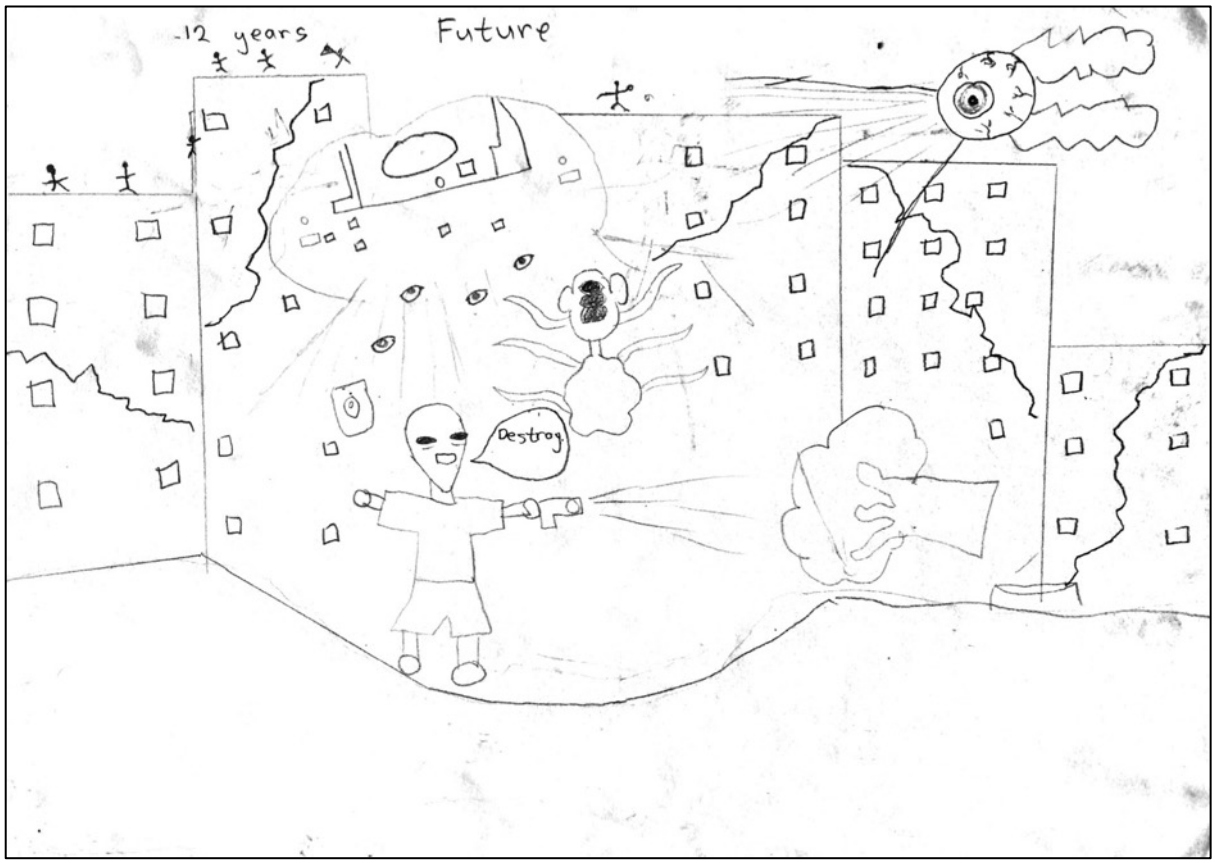

Figure 70: Wentworth in the year 2117, as imagined by a 7th-grade student

[70] As secondary education was not within the scope of my research, this point is based on interviews with teachers and academics, as well as a cursory review of the relevant literature.

What could make a 12-year-old child imagine a dystopian future like that depicted in Fig. 70? Social breakdown and fragmentation appear all-encompassing, with the only verbal clue the word 'destroy' and the only natural element a tree being torn down. This picture, produced by Declan, one of the students at Durban South during a focus group session about imagined past and future worlds, seems to express a fate this boy saw for his future environment. The drawing was representative of the children's concern with fast violence in the community, a concern also reflected in the student film 'Pollution Kills'. As discussed in Chapter 4, Wentworth suffers from major social issues, including poverty and unemployment, drug abuse on a mass scale, both petty and organised crime, gang warfare, a high prevalence of prostitution, alcoholism, domestic and gender-based violence, a breakdown of family structures and high HIV rates. Wentworth is, in other words, a site of fast violence whose spectacles can easily overtake the slow violence of environmental injustice and racism as the top concern of children and their families. When I asked Collin, one of the students who made 'Pollution Kills', to tell me about his life in Wentworth, his response revealed a powerful sense of spatial containment and fear:

> *My life living [sic] in Wentworth has been fine but at the same time it's been dangerous because of the gang violence here in Wentworth. There was been [sic] two gangs. It's where I stay and just up the road from where I stay, those two groups were fighting so like every time when you want to go to the shop it's not like you can even go because the shop is above. So, like when you walk up the road you don't know when you're going to get shot. So, it's very dangerous.*[71]

The sense of danger is a central theme in 'Pollution Kills'. In one scene, for example, a boy takes a quick break from playing soccer to talk to the film crew about violence in Wentworth

[71] Collin also shared with me his experience of one of the physical spaces in Wentworth: 'I got to learn that with where I stay, I need to protect myself. I need to have a good education, I need to grow up and be something I mustn't just be like the boys that sit on the corner where I stay. And also, as I was growing up I also learnt that where I stay there's another part of where I stay it's call Ogle Road, it's a pool there. It's a very dangerous pool because a lot of people have died in that pool. So, I went to that pool once and after that when I came back about a few days afterwards my friend came back and told me that his father's friend died in that pool. And after that I've never ever went to a pool'.

(Fig. 71). He casually talks about murders, drug use and violence among children without breaking his smile, indicating that this is 'normal' here. When I asked Mrs. Pillay how much importance young people, in her experience, attach to their health, she told me 'I think just doing today, basic needs become a more important struggle. A struggle to survive is more important'.

Figure 71: Young people describing fast violence in 'Pollution Kills'

This has profound implications for schooling in Wentworth. While environmental justice and stewardship receive little attention in the syllabus, they are the focal point of everyday struggles. The teachers cited spectacles of fast violence again and again as the main obstacles to education and key challenges for students and teachers alike. In Megan's words, 'you stand in front of them [pupils] and you try and teach them four times two plus six minus one, and they are still in shock over the fact that my father beat my mother up . . . I think our teachers are counsellors more than anything else'. My observations of school lessons were consistent with this comment. Some of the lessons I observed, in particular in the life orientation, or LO, classes, almost felt like group counselling sessions in which the teacher was trying to give students advice about how to deal with the harsh realities of living in Wentworth.

In other classes, teachers struggled to keep control of the students and were often ignored. These teachers' frustration was palpable. Megan further reflected on my questions about environmental themes in the education offered by the school:

> *To be honest with you, I said to a teacher at school—I said I wonder what this guy [Peter] is thinking, I wonder if he looks across the road and he sees the litter and the houses that have paint that is peeling and the state of the Wentworth area and he must think these people are uncultured and they are uncivilised and they are such pigs. But they literally don't see it. Because the struggle is so intense, that nobody is interested in keeping the grass short or why's there so much of erosion on that bank and we need to plant grass. No . . . I'm saying that people are not there yet. Life is complicated far beyond environmental issues.*

Megan's attempt to defend the community and explain why environmental issues are given low priority is striking, as is her definition of these issues. Environment here is connected with aesthetics, as reflected in the 'NO LITTERING' signs throughout the school that students captured in 'Pollution Kills' (Fig. 72).

Figure 72: A 'NO LITTERING' sign students captured on video

While the aggregate impact of slow violence on the lives of people in Wentworth might be as great as that of fast violence, it is not necessarily seen.[72] In many ways, this is the quintessential story of the high Anthropocene: the fast violence obscuring the slow violence and creating collective blind spots that are often perpetuated by the very education systems designed to make us open our eyes.

Teaching environmental education in the context of spectacular fast violence was a tall order. While teachers in Wentworth did not refer to environmental education as an 'opportunity to relax', it was clear that it was deemphasised and taught in ways that individualised responsibility and eschewed the wider social implications of sustainability. Within CAPS, environmental education is seen as a cross-cutting issue and does not have an allocated subject, as it is meant to permeate the whole curriculum (Schudel, 2017). The subject with the most environment-related content is life orientation, although its focus on environmental issues is limited, as one LO teacher at Durban South told me. 'There's a section on environmental awareness, but even there it's maybe three weeks just on environment. You teach them on soil degradation and all that comes up is the issue of environment'. According to the teacher, this is insufficient. 'What does the child do with that? Write an assignment. You cannot go back and talk to them about it and it's over and forgotten. It's done with'. When I asked one of the Wentworth LO teachers to tell me about the environmental content taught at the school, his response was, 'I think there is something that deals with the environment there, respecting the environment, caring for the environment . . . When I say respecting it, for example, if you go to a picnic and making sure that the place is clean, using products that would not harm the environment'. This response was particularly astounding, given that we were looking at smokestacks releasing toxic substances into the air as we were talking. It reminded me of a

[72] As discussed in Chapter 6, one of the activist narratives in Wentworth revolves around the joblessness caused by disability which is the result of industrial pollution; this narrative shares with many other narratives the assumption that much of the 'fast violence' in Wentworth is the consequence of unemployment, especially among young men.

shot from ‘Pollution Kills’ in which the school gardener is seen wielding a bin full of trash with smokestacks rising above him, as if humans were powerless to challenge industry, their agency limited to ‘beautifying’ the micro-environment of the school (Fig. 73).

Figure 73: Trash and smokestacks in Wentworth, as captured in ‘Pollution Kills’

This was consistent with what I had observed at the school—a preoccupation with cleanliness. The first thing virtually everyone mentioned when I asked about the school’s environmental education was the student litter monitor programme, which combined individualised responsibility for the environment with a focus on discipline and surveillance.[73] When probing with a social science teacher whether the subject of polluted air ever came up in her lessons, she replied,

> *I haven’t found a situation where we really truly just sat down and discussed how the refinery affects the air around us . . . Like, what would you as a school do—there are people who are provided jobs there, who live in the area so if you are saying the refinery*

[73] The following anecdote, which I recorded in a fieldnote during a classroom observation in May 2017, is representative of how I was treated by the students just by virtue of being associated with a teacher. It recounts an encounter that took place while the class I was observing was taking a class photograph outside and I was sitting in the classroom alone, waiting for the teacher and students to return: *While the students were gone taking a photo, 3 students from another class entered the classroom and greeted me. They said ‘Isn’t this class naughty?’ – they also kept asking me what my ‘school name’ was and did not take ‘Peter’ for an answer, only left after I said ‘Mr. Sutoris’ which seemed to fit their expectation of a proper school name.*

> *must move, it must move where? And who's going to work and what happens to all these people who are employed there who are breadwinners for their families . . . It's a vast and quite an intricate thing to just even think about how do you even begin to tackle that.*

This complexity was afforded no space in the curriculum which meant that teachers were not discussing it in their classes. One school principal in South Durban called the curriculum straight-jacketed and noted that 'environmental justice is not part of it'. Any attempt to bring the 'radical' agenda of sustainability into the schooling process would be considered subversive.

Just as in India, the South African educators made it clear that the curriculum, or at least the way they interpreted it, emphasised development over the environment. Aruna, my key informant in Wentworth, said to me, 'If I look at all the subjects, like I said it is all about money. How much of money can we get. What can we sell, what can we buy'. The school appeared to be aligned with an informal economy of township entrepreneurialism that shaped young people's imagined ideals. 'Obviously, if you tell the child we need the trees and plants to give us food, then the child will say in order to get the food, we need money to buy the food. So again, it's industry development over nature'. This commodification of the environment mirrors Seema Primary teachers' view of the dam as a pathway to development, suggesting an underlying assumption in both curricula that the natural environment is to be exploited for its economic benefits in the name of development.

Another ideological similarity between schooling in the two sites was the narrative of the self as capable of rising up against all the odds. While this could be accomplished by submitting to the teachers' efforts in Pashulok, educators in Wentworth talked about the need to make the right moral choices. Perhaps the best example of this tendency came up in my interview with Mrs. Pillay, who told me that, to inspire students, she uses herself as an example. 'We lived in a room where half the divider was the lounge and that was the bedroom, two

bunks, four children'. Mrs. Pillay has since 'made it' in Wentworth, which she attributes to making the right life choices. 'All they just see is [Mrs. Pillay] driving this Mercedes, living on Treasure Beach,[74] having these children that also have their own cars'. That's why the students are often surprised when they learn of her background. 'It's hard work, it's sacrifice, and it's having a strong will that has brought me to where I am . . . You can get out of this, you can'. This narrative individualises the dreams attached to a failing constitution and eschews the state's and the education system's inability to deliver on their promises of equal opportunity and environmental justice. Such a vision, which was echoed in many of my interactions with teachers and administrators in Wentworth, takes the collective element out of politics and leaves behind a depoliticised theory of action devoid of any notion of historical responsibility.

At both the Indian and South African sites, schooling acted to commodify and depoliticise spaces of freedom. The temporality of both schools was forward-looking and educators here sought to cultivate children's aspirations to an abstract notion of national development and a personal goal of winning the race for a 'good life'.[75] The rituals of discipline and the symbolism of schooling for development sought to mould political narratives of selfhood into homogeneous, shapeless forms by suppressing political imaginaries, eschewing historical responsibility, undermining civic equality and advancing an anthropocenic myopia of slow violence. The borders of learning in these communities were designed to be firm and impermeable, and to prevent the emergence of agonistic pluralism and undermine the transfer of intergenerational knowledge, and thus to hinder action or the start of anything anew (Arendt, 1998). These spaces of institutionalised liminality, rather than linking past with future through the present on a temporal arc, painted state-sponsored lies of meritocracy disconnected from past and present as the destiny of educated citizens. Rather than contributing to development,

[74] Treasure Beach is one of the most affluent areas in South Durban, separated from the oil refineries by a hill and overlooking the Indian ocean.

[75] Intergenerational knowledge transfer played little role in these aspirations, as did any concept of the environment that did not see it as a site of exploitation for economic growth.

these lies spread bureaucratisation and took humanity further away from taking action in response to the environmental challenges of the Anthropocene.

5.2.2 A politics of hope

Perhaps due to my longer immersion in the Wentworth site, as time went by I started seeing the teachers there as more rounded, more complex, more closely tuned into the experience of slow violence than those at the Indian site.[76] While spectacles of fast violence and other factors that contributed to the individualisation of responsibility at the school were front and centre in my fieldwork, I also started noticing departures from the dominant trends. These originated with what I came to call outlier teachers, educators who sought to inject themes of environmental justice and historical responsibility into their teaching despite the limitations of the curriculum. I started noticing that the direct exposure of both learners and educators to pollution and its health effects led to an experiential awareness, and a tacit critique, of the high Anthropocene which echoed the notion that 'we are not products of a total institution'.

In some cases the critique was explicit. One headmaster in the area told me, 'We talked about the threat of nuclear [power] in this school. We've talked about the Clairwood racecourse and the traffic that it's bringing in and the kind of effect it will have in the community'. While such examples were not common, and teachers often reported that schools failed to take part in protests due to industries' greenwashing efforts, this points to the possibility of synergies between spaces of schooling and spaces of activism. Individual educators also engaged in similar 'transgressions'. Ella, a teacher, told me that she goes well beyond the CAPS curriculum in her teaching and incorporates what she calls 'hidden education' that mostly

[76] They were also often aware of how slow violence affected them personally. For example, in one of my conversations with one of the students who made 'Pollution Kills', the student told me about a life orientation (LO) lesson in which the topic of pollution came up. 'He [the teacher] said that's why he doesn't want to live in Wentworth, Wentworth and Merebank, that's why he doesn't want to live here. That's why he went to another place because it's much safe because in Wentworth things happen; fire comes out any time'.

revolves around ethics and building up the children's self-confidence. 'Where I can, I will teach my child and create my child to be confident, to have that self-confidence in yourself that you can stand up for yourself. That is not in our syllabus. So I teach that in the class because I want my learner tomorrow to be an activist, you know whether it is politically, whether it is . . . being an environmentally friendly activist or being in parliament . . . so that tomorrow they can stand up for what is right and they have a voice'.

Ella's approach contrasts starkly with the apparent dominant narrative of 'the good life' in Wentworth. This particular teacher taught 2nd-grade students at the time and shared with me her worries that principles of confidence and standing up for what is right might be lost on students, due to the discipline-oriented schooling of more conventional teachers in higher grades. I had to agree with this concern, based on my observation of what went on in these classes. But there were exceptions; Lee, a 7th-grade history teacher, once shared with me that he ties the history of South Durban into his lessons. 'We looked at the political situation then where they just stuck this [factory] here and they didn't care because it didn't affect the Whites at that stage'. This teacher was, in effect, taking the experiential learning of the students living in Wentworth and applying it to a historical narrative stressing the environmental injustice caused by decades of apartheid.

It was clear that the students were relying on such narratives in their understanding of their community's social predicament and in their imagining of the future. Having reflected on the methodology of the observational filmmaking workshop in Pashulok, I slightly modified my approach once I started working with children in Wentworth.[77] I started the workshop with a series of sessions in which we collectively brainstormed and drew mind maps on the blackboard (Fig. 74) to depict what was unique about Wentworth and how this uniqueness could be captured visually. The children initially came up with ideas that showcased their

[77] This is discussed in more detail in Chapter 3.

community in a mostly negative light and reflected the dominance of fast violence in the lives of local residents. But they also mentioned themes of slow violence, historical injustice and hope. Some students were critical of Wentworth's predicament and pointed to local civic groups and individuals whom they saw as working to alleviate the suffering of local residents. This double approach manifested itself in the films the students produced—'Pollution Kills' about the impact of the Engen refinery on the health of Wentworth residents and another one called 'Wentworth Changing to Progress', a cinematic tapestry of individuals and organisations working to improve the community.[78]

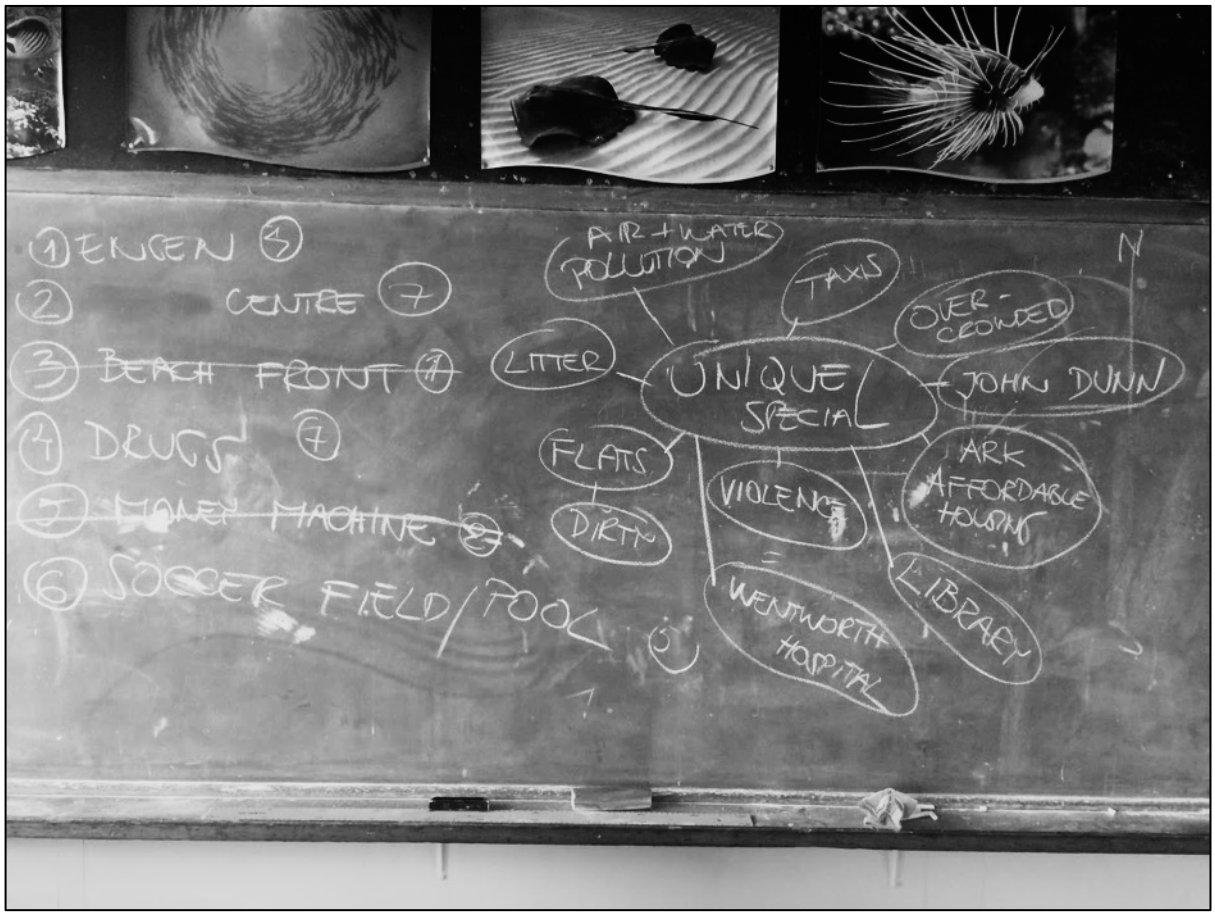

Figure 74: Mind-mapping the uniqueness of Wentworth on the blackboard

[78] The two groups of students working on these films divided themselves along gender lines, with the boys working on 'Pollution Kills' and the girls making 'Wentworth Changing to Progress'. For the purposes of this thesis, I did not analyse how gender might have affected the perspectives of the two films, but such analysis is certainly possible and might illuminate the different experiences of boys and girls growing up in Wentworth.

Figure 75: Uncle Lala controlling traffic in front of the school in Wentworth

Many scenes in the films showcased individuals, both alive and deceased, who left a significant mark on the community. In the opening of 'Wentworth Changing to Progress', for example, the children filmed Uncle Lala, a local retiree who spends his afternoons directing traffic outside the school (Fig. 75). They asked him why he does this and captured his response on video. Uncle Lala described his sense of historical responsibility, an act of intergenerational knowledge transfer captured on camera. He said that he, too, has children and therefore cares about the pupils' safety.

In the film the children also incorporated footage of Dance Movement, 'an organisation that children from Wentworth can go to so that they have something else to do like dance so that they're not sitting at home and becoming gangsters and doing drugs and stuff like that', as Cheryl, one of the student filmmakers, explained. Another group captured in the film was the Keith 'Skido' Joseph Foundation,[79] a civic organisation dedicated to the memory of an activist

[79] Joseph Skido, who had a history of anti-apartheid activism, was one of the artisanal labour unionists who founded the Metalworkers' Cooperative in Wentworth (Chari, 2007, p. 260). Chari (2008, pp. S68–S69) recalled: 'I drove around with the late Skido Joseph as he put together his portfolio as a "development consultant", to transform his situation as an unemployed person who seemed genuinely interested in helping the lot of his neighbourhood. He printed his portfolio in one community organisation, used the phone to make an appointment in another, and had a friend in a third organisation look over the format of his profile. Skido had a chequered past

and MK fighter from Wentworth.[80] In Cheryl's words, 'it's a foundation that helps people get jobs and does a lot of things like to prevent corruption and stuff'. Zooming in on the foundation's slogan, 'The legacy lives on' (Fig. 76), the children connected the debt to the dead to a hopeful future—a temporal arc built over a gloomy presence that nevertheless expressed the hopefulness of pluralistic politics.

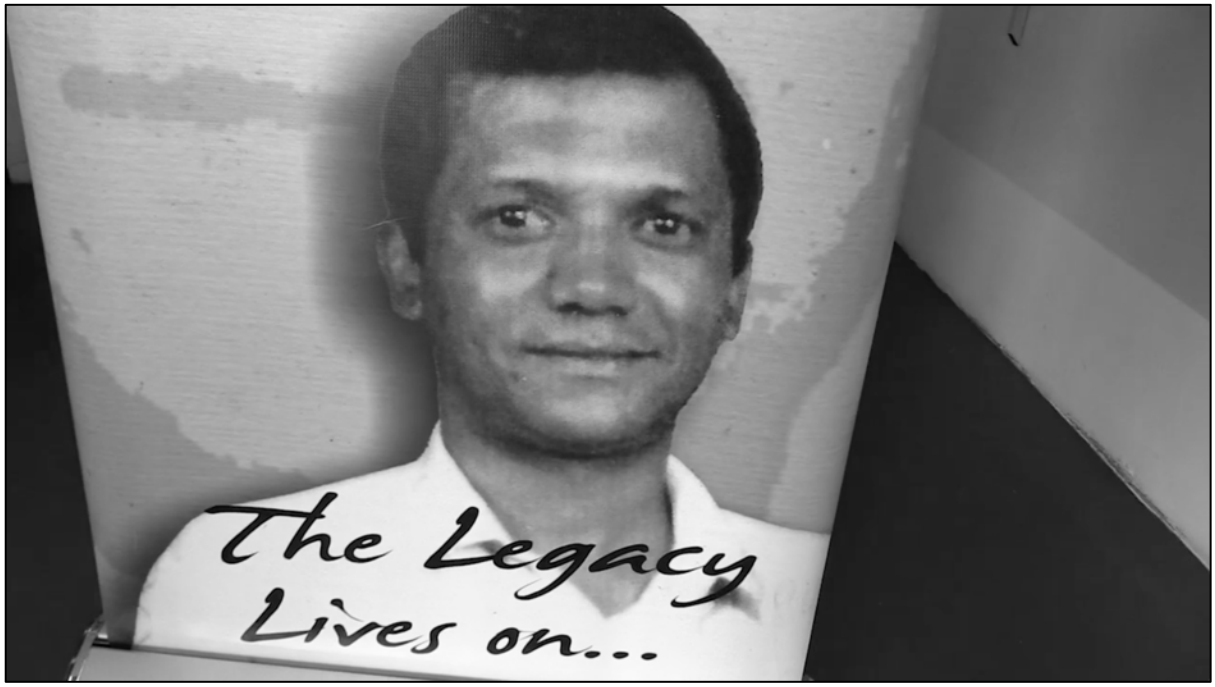

Figure 76: The Skido Foundation's future-oriented slogan

The students working on 'Pollution Kills' included not only shots of smokestacks in Wentworth and interviews with local residents suffering from pollution-related health issues but also their interactions with environmental activists. The students met Desmond, whom they filmed demonstrating various techniques for measuring air quality (Fig. 77). At one point in the film, as Desmond explains that factories must meet pollution levels set by the government,

as a labour organiser and community activist, though the precise details are difficult to verify. What was clear, as he drove around Wentworth in his old car blaring anti-Apartheid "struggle music", was that he was bitter about not being able to use his struggle credentials to access jobs in the post-Apartheid state, as many of his former comrades had. Skido's asides to me were contradictory—sometimes racialised, and at other times cosmopolitan; sometimes extremely conservative on gender and sexuality, yet often encouraging of women's activism. Skido was a charmer and one got the sense that he could work the system, at least enough to get through his everyday movements. Most of his labours were unpaid, and we often met while stealing a cup of tea from a kind host in Wentworth'.

[80] For above-ground political activity in Wentworth during apartheid through unions and other organised groups, see Chari (2005, p. 16).

the student behind the camera asks what happens if the industries 'don't listen'. Desmond responds that, in such a situation, the student should let him know and SDCEA would take up the issue.[81] While on camera, Des reassured students that activists have the power to bring the industry to task, but his frankness in one of our conversations betrayed a more nuanced answer to the student's question: 'From the once striving country with the most progressive constitution in the world, the most progressive environmental laws and the best equipment . . . used to give them [municipal officials] the evidence [of pollution], . . . is now been [sic] destroyed. It tells you a lot from [sic] where we come from and what the vision was of our forefathers and the people that came after them'. This differentiation between the forefathers—who symbolise the promise of a different kind of politics—and the country's contemporary leaders points to an intergenerational liminality of action, a collective paralysis which meant that SDCEA could keep trying to revive the politics of old but the odds were stacked against it.[82] Perhaps it was this liminality that the student instinctively recognised when he asked what happens if the industries 'don't listen'.

By exposing these dynamics, the film paints a layered picture of a troubled community that is not without hope and that rallies around air pollution as a shared enemy. Put differently, the students' film captured much of the complexity of the activist struggle and the community-activist relationship that took months for me to grasp during my fieldwork. The film reflected a degree of awareness and engagement with environmental justice that went well beyond the school curriculum, as well as an openness to learning the state, justice, race and environment through a collaborative 'agonism' over assembling a short film.[83] Ultimately, the film had a

[81] This brief exchange illuminates several aspects of environmental racism and environmental activism in Wentworth. Even primary school children are fully aware that the local industries exceed acceptable levels of pollution and that legal pressure alone is not sufficient to change this. Activists, for their part, encourage residents to use the legal recourses available to them and only turn to advocacy if this fails.

[82] By this I do not mean apartheid politics but the kind of politics that emerged as a result of the anti-apartheid struggle and extended into the early days of the post-1994 dispensation.

[83] The process indeed led to many disagreements among the students—from everyday logistics of arranging where and when to meet to go filming, to deciding who would keep the camera overnight, to figuring out how to translate the broad theme of the film into shots that could realistically be captured. The students also had to find a way to

Figure 77: Desmond demonstrating how air quality is measured

political agenda, as Collin shared with me on my last day at Durban South Primary: 'Our goal with the film was to like show them that pollution is killing us. It's not just the pollution is here and the pollution is going to go. It's like to show them that the pollution is destroying our community that we're living in'.

When we showed both films to Mr. Naidoo and several teachers on my last day at Durban South, I could not help but feel after the screening that the school staff questioned their beliefs about these students. Rather than representing walking bundles of social problems, potential troublemakers or clean slates to be filled with state-sanctioned knowledge, these young people showed both motivation and an aptitude for articulating counter-narratives to what they were taught in school. They quickly engaged with and mastered a medium of storytelling and expressed a pluralistic vision of their community. They saw and understood

harmonise their visions during the editing process, which was sometimes tedious, but ultimately the two groups were able to reach internal consensus on the final edit of each film. This is how Collin described the process within his group, which made 'Pollution Kills': 'We spoke in a group and then if one person didn't like it then we wouldn't film it. And if all of us liked it then we would film it because we can't put something in the film that we're making that somebody like Tanya [another member of the group], if she didn't like something we wanted to film we couldn't because we don't know if what if her opinion is better? What if she wants to take us to a better place'?

Figure 78: A dystopian future, as imagined by Luke

slow violence and avoided the trap of fatalism in their narrative, suggesting that they were confronting the Anthropocene in real time.

It was not only the student film-makers who were educating themselves for the Anthropocene. The drawings made in focus group sessions, which depict how pupils imagined Wentworth 100 years ago and 100 years into the future, also demonstrate a political imaginary that far surpasses the visions of past and future taught in the South African curriculum. For example, 7th-grader Luke came up with a schematic depiction of the future consisting of 'deforestation, starvation, dry land, dry puddle, climate change' (Fig. 78).[84] In Luke's words, 'In the past I drew like . . . they used to go fetch water in the river. Like it was an ordinary life, no technology and everything. And then in the future there's like climate change, there's starvation, dry land and dry and all the deforestation thingies'. When I asked him why he

[84] Luke lived in Wentworth but did not go to Durban South Primary; the drawings and quotes come from one of the focus groups I conducted at another school in the community. These focus groups did not seem to point to any systematic differences between the perspectives of students at Durban South and the other school, and the two schools were similar in terms of size, the demographic they catered to and their exposure to social and environmental issues in Wentworth.

thought these environmental crises would occur, he responded in a way that suggested he was connecting his experience of living in Wentworth to systemic patterns of human behaviour:

> ***Luke**: Like land pollution, we always educated people on littering but it doesn't have an impact on them on what's going on in the environment. They're still going to litter. They're still going to do their own things in the environment and they know that and they still do it.*
> ***Peter**: Why do you think they keep doing it?*
> ***Luke**: I don't know why they do it, I don't know hey.*

But Luke seemed to know more. His drawings not only demonstrate an acute awareness of environmental challenges central to the high Anthropocene moment, they also extrapolate from these and point to a dystopian future in which human agency is diminished, where the future becomes a slave of the past. His imagined depiction of Wentworth 100 years ago (Fig. 79) is considerably more idyllic, with a more realist portrayal of a natural environment in which people are able to live without destroying the resources on which their existence depends. The schematic depiction of the future and the realist depiction of the past mirror the limitations of what is knowable: whereas memory and history teach us about a past that existed and allow us to imagine it in concrete terms and to have a dialogue with it, visualising a future that has not yet come to be relies on an awareness and extrapolation of our perception of the current reality. Luke stripped this extrapolation down to a few concepts and selected traits of a future world that were the most directly related to human agency in the present. These drawings suggest that their author has been, to some extent, educated for the Anthropocene despite not being schooled for it.

Another student, Denira, drew an imagined past (Fig. 80) that suggested a similarly romanticised view of life 100 years ago. Her depiction reflects harmony between nature and humanity, with abundant trees, clean water, dispersed houses and the people's palpable

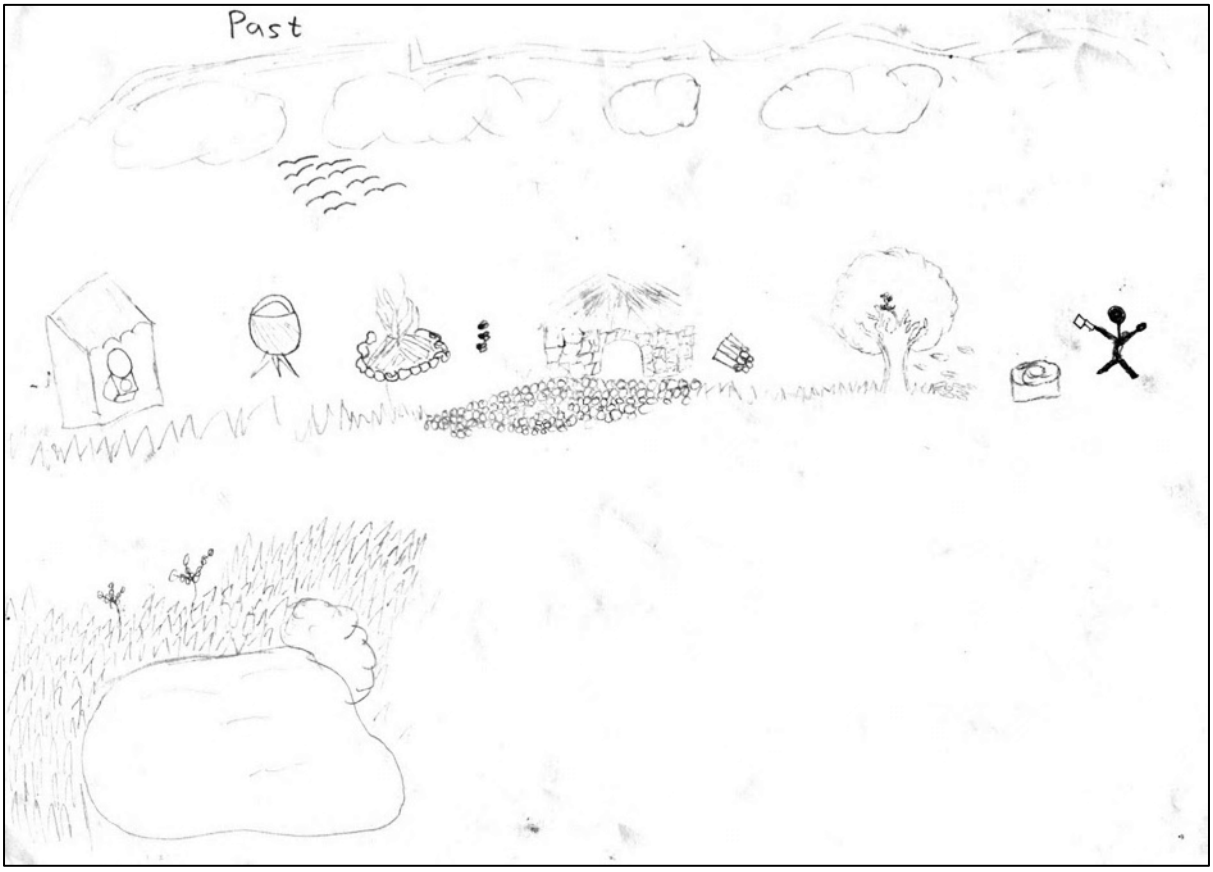

Figure 79: Luke's imagination of an idyllic past

happiness. Denira's drawing becomes even more interesting when compared to her portrayal of the future—except that she appears to have misunderstood the task and wrote 'Future (What's now)' on the top of the drawing (Fig. 81). The present is portrayed here as optimistically as the past. There are fewer trees and no mountains and the houses have turned into multi-storey buildings, but the picture shows no evidence of violence, slow or fast. People's smiling faces as they engage in enjoyable activities, from listening to music in a cabriolet to soaring in a balloon to flying kites, are all over this picture. The image stands in stark contrast to the verbal descriptions of Wentworth I heard during my fieldwork from both adults and children which focused predominantly on fast violence, the lack of a future and the desire to leave. The drawings contradicting these perceptions, of which there were many during the focus groups, suggest that the children not only imagine different futures for themselves,

Figure 80: Denira's imaginary of life in the past

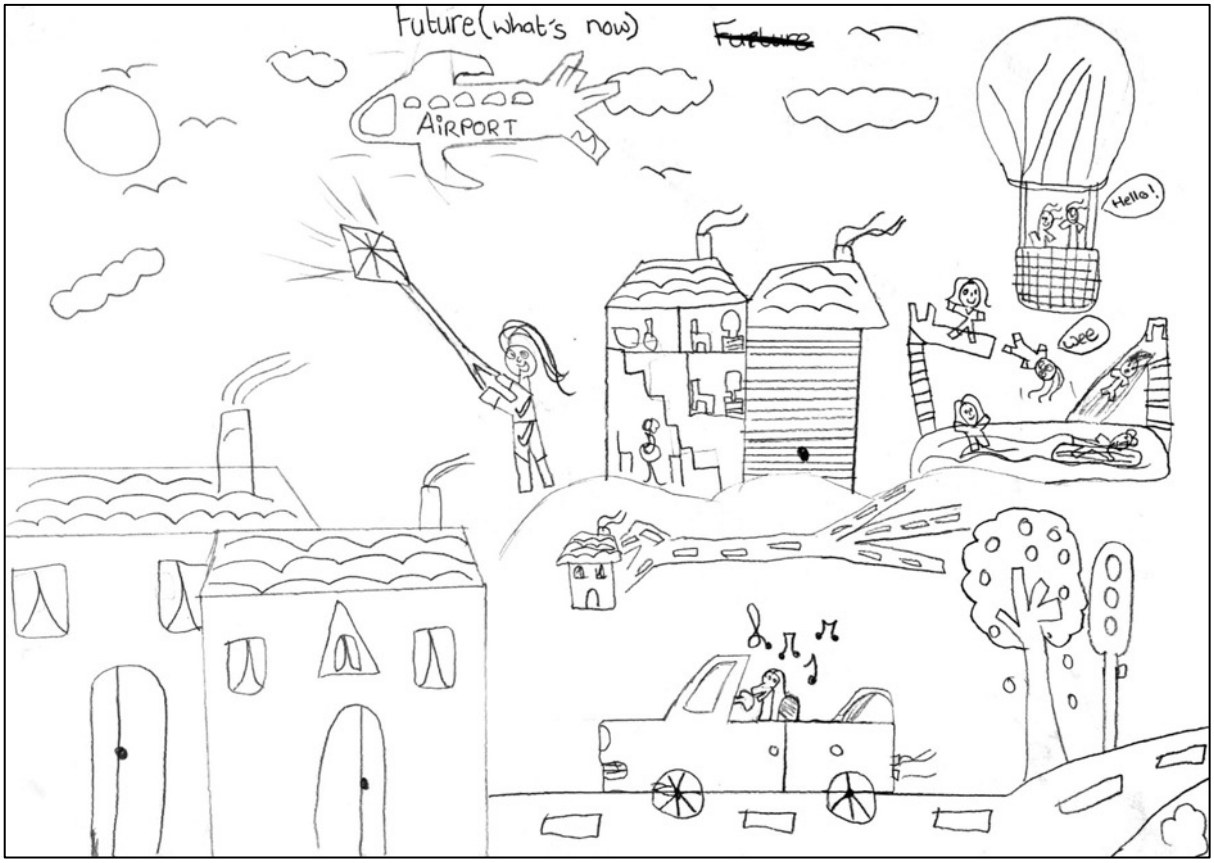

Figure 81: The future as the desired present in Denira's mind eye

their families and their peers but also re-imagine the present, almost as an act of resistance to the schooling's oppressiveness and its institutionalisation of liminality. While 'hope' in this context may not take the form of Arendtian action and may operate instead as emotion within the 'structures of feeling' (R. Williams, 1977), it still has the potential to challenge the 'practiced ignorance' (Arendt, 2006) advanced by the school system. The sources of the students' reimaginations and symbolic acts of resistance echo visions of a more environmentally just world held by activists in both India and South Africa, who are the subject of the next chapter.

Part Three

Arendtian Action And Alternative Political Imaginaries

Figure 82: Chains black and white, Cape Town, 2017

Dilemma Three

The Myth of Impartiality, or How I (Almost) Became an Activist

I was introduced to Rakesh through a mutual friend. I was looking for an 'in' into the activist world of Uttarakhand, and it turned out that Rakesh, an associate of Sunderlal Bahuguna, the renowned environmentalist behind the Chipko movement, had worked with one of my filmmaker friends in India. Our first meeting, in a bustling café near Delhi's Connaught Place, is etched in my memory. A tall, gregarious, grey-haired, kurta-wearing man with thick glasses, Rakesh reminded me of many of the intellectuals I had met during my years living in South Asia. But there was also something different, something very non-middle class about him. 'He's a Gandhian', my friend told me before the meeting. His self-discipline was palpable and the way he talked and moved betrayed a spartan lifestyle. Yet, I soon realised he also had a strong desire for recognition. Unlike Medha Patkar or his mentor Sunderlal Bahuguna, who were revered by Western journalists and academics, Rakesh's obscurity beyond Indian activist circles was clearly a sore point. When he learned that I had done some work with Kailash Satyarthi, the anti-child labour activist who had shared the 2014 Nobel Peace Prize with Malala, Rakesh looked at me half-surprised, half-indignant. 'If he got the prize, I should get it, too', he scoffed in an attempt to drive home how much he had done for India and for the planet.

A week later, we were sitting in the principal's office of a school in Pashulok. Rakesh had related the history of recent local protests and sold me on the idea that this was the most suitable site for my research. Two days into my fieldwork, he was effectively making key decisions on my behalf and I felt deeply vulnerable. My ethnography was not supposed to be a treatise on Rakesh's worldview, but I felt it was sliding in that direction. Nevertheless, his rhetorical abilities and his charm were massive assets in gaining access to spaces someone like me could only dream of being allowed inside. The school principal had firmly said 'no' to us at first, but Rakesh convinced one of the teachers, whom he had never met before, to vouch

for me and sign a letter taking full responsibility for whatever happened. I was impressed, even more so after learning that this teacher was in fact a supporter of the Tehri Dam and did not share Rakesh's views at all. But there was something about Rakesh—my friend refers to him as a moral compass—that enables him to bend others to his will. I was glad to have him on my side.

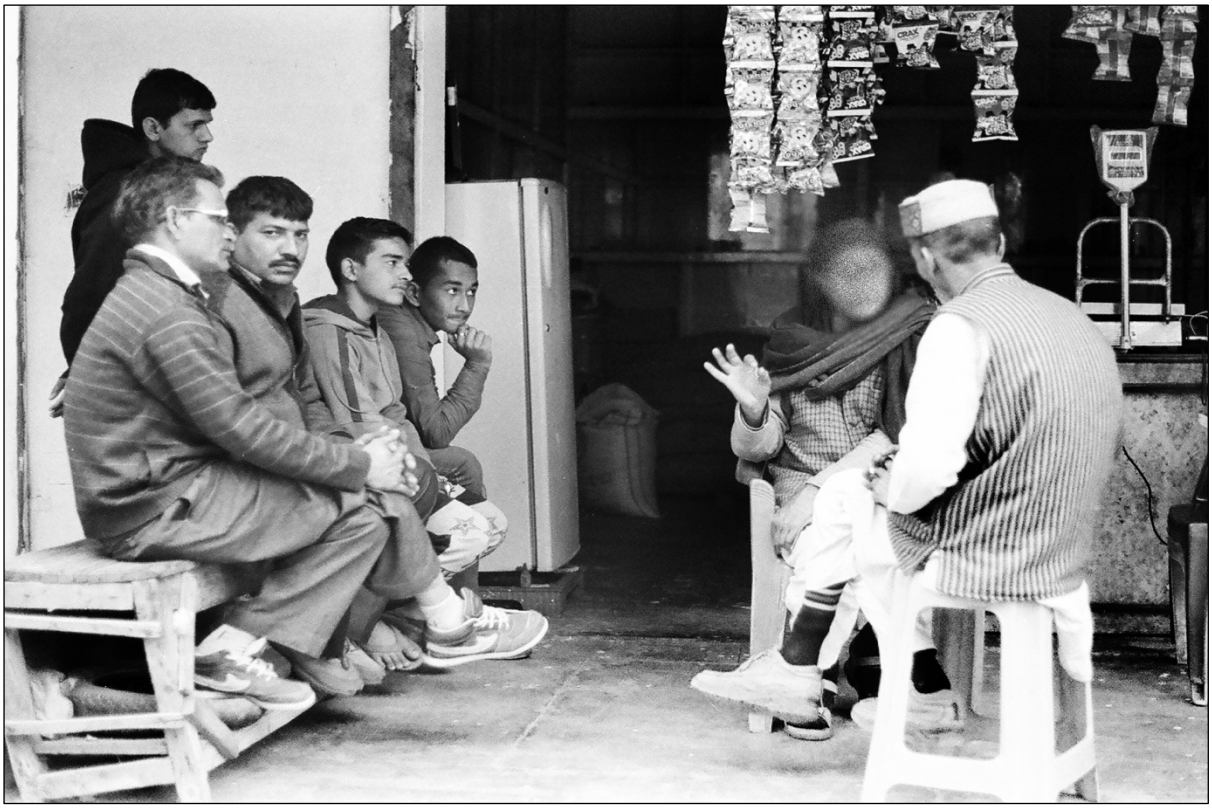

Figure 83: An activist translator translating an interview of a fellow activist in Pashulok[1]

Whose side was he really on, though? I have no doubt that, in his mind, he was on the side of 'the truth', which became a point of contention between us. I was not so much interested in the truth as I was curious about the subjective experiences of those ousted by the dam project, the many individual truths forming the painful mosaic of displacement. Rakesh kept asking me why I needed to interview individuals rather than groups of oustees and why the

[1] Rakesh's face is blurred in this photo to protect his identity. At the time of fieldwork, he gave me oral permission to quote him directly (without using a pseudonym) and include fieldwork photographs in which he appears in the thesis but given that my text about him is not always flattering, I shared the text and the photographs with him and attempted to get his permission. I did not hear back from him, and in the absence of an explicit re-confirmation of the permission he originally gave, I decided to keep his identity hidden.

interviews needed to be so long and personal. When translating for me (Fig. 83), he often altered both my questions and the participants' answers, something I noticed even with my very basic Hindi, and at times we argued about this in the middle of interviews. In the end, due to Rakesh's 'translations', I had to hire professional translators to go over all the interview recordings and identify discrepancies. Rather than phenomenology and hermeneutics, Rakesh was concerned with justice, which, it seemed to me, was a black-and-white affair to him. The whole process felt like a performance in which I was to play the judge, Rakesh the prosecutor of the corrupt Indian state and the Pashulok oustees the witnesses he called to testify in support of his case.

From the beginning, I was aware of the performativity (cf. M. Z. Rosaldo, 1982) shaping our interactions. I could see that Rakesh wanted to impress me. I suspected this had something to do with my gender, the colour of my skin, the fluency of my English and the Cambridge University logo on my business card, and this made me uncomfortable. Rakesh felt the tension, too. I remember sitting in his rented room in Rishikesh on a cold February evening, debriefing after a long day of interviews, when he offered me his hat. When I declined, he said, 'You don't want it because you think my head is dirty'. I could sense the discomfort in his voice.

And then there was the money. I was paying Rakesh a daily wage for his translation work (though he of course did much more than translate). This made for a power dynamic even more fraught with inequality and it motivated Rakesh to show 'results' for his work. For example, he aimed to conclude the process of finding a school willing to have me within hours, or at most days, while I was open to a longer exploration in an effort to get the site selection 'right' (even though I was not sure exactly what that meant). Matters got further complicated after Rakesh asked me to tell him how much my degree cost; when I told him he took it as evidence that I was wealthy, despite my attempts to explain that my degree was paid for by a scholarship. This prompted him to ask me to pay him more, even though the request was not

framed as such: rather, my payment was to be a contribution to the 'cause' he was fighting. There was no escaping it: by choosing Rakesh as my key informant and translator, I entered a highly polarised field, and in his eyes (and gradually in mine, too) I entered it more as a fellow activist than a researcher.

Rakesh left after a week, as we had agreed, due to his busy schedule, and for the rest of my fieldwork I worked with local translators. It soon became clear that the people he introduced me to, who all shared his views about the dam, the Indian state and development, were far from representing the only voice in Pashulok. I later encountered people who applauded the dam and whom I suspect Rakesh would not have wanted me to meet, and people with other opinions he likely did not know about (cf. Drew, 2017). But that first week with Rakesh left a lasting legacy on my understanding of the conflict and on the way the local community perceived me. It also planted a dilemma in my mind: Should I take sides in this conflict to potentially gain depth at the expense of breadth, as some people would likely open up to me while others would refuse to talk to me? Or do I try to stay neutral? Given that I was seen to be associated with Rakesh, did I even have a choice? And what about the ethics beyond research ethics: if I believed treatment of the oustees was not just, was I not obligated to do what was in my power to help?

Working with Rakesh was simultaneously fascinating, rewarding and frustrating. It took away any pretence of my being an impartial observer and forced me to confront my own politics and the politics of the field. His fast research felt anti-ethnographic while simultaneously being one of the most significant ethnographic encounters of my fieldwork that gave me a window into the politics and psychology of activism in 2017 India. For all the ways Rakesh's presence complicated my research, he increased the 'available light' (Geertz, 1973) in the room.

Chapter 6

Environmental Activism: An Answer to Educating for the Anthropocene?

When I was there talking to the parents, I was actually crying. I spoke to them and I said: 'I want to tell you as parents, I am making a vow. The scales are removed off my eyes, I'm going to fight on, I'm going to fight on with the industry with all the energy I have within my body.' This year, that child died, she never saw high school. I have seen this happen once too often in my journey, in my walk, in my talking with parents and children.

Desmond D'Sa, activist, South Durban

We were in a car driving southward from Phoenix, Durban's biggest township. Desmond D'Sa, sitting in the front seat, sounded tired as he assessed the community event we were coming from. The turnout was good, he said, but there was less tension than usual because only activists and community members came, with representatives of the petrochemical industry notable by their absence. He was not happy to see a group of people who showed up wearing blue Democratic Alliance[1] t-shirts—they claimed they had come straight from a rally and did not have time to change—and suggested that they tried to hijack the environmental agenda, despite the fact that there was 'no political party' in South Africa actually targeting environmental issues in its programme. The event we had just left was the last in a series of community gatherings organised by the South Durban Community Environmental Alliance (SDCEA), which Des chaired. The gatherings had been held around the city in the aftermath of a large fire in a candle wax factory (Fig. 84) in South Durban on March 24, 2017, that had captured the national imagination; it took firefighters more than three days to extinguish it (S. Hunter, 2017). While sitting in a café in Cape Town, I had seen images on the television of firemen fighting thick clouds of black smoke. At the time, I was having a phone call with a Durban academic studying social movements who had just told me, 'It's been a bit quiet in South

[1] The Democratic Alliance (DA) is currently the largest opposition party in South Africa.

Durban in recent years'. But when I arrived in South Durban a few days later, it was everything but quiet.

Figure 84: The South Durban fire of March 2017[2]

Meeting with Des in Phoenix in many ways encapsulated what SDCEA came to represent for me during my time in South Africa. The group was active all over the city in the aftermath of the fire; in the eyes of city residents, South Durban was no longer just a geographical area but a symbol for resistance to environmental racism, industrial pollution and the unfulfilled promises of the country's post-apartheid dispensation. Several people spoke in Phoenix, where, on this sombre occasion, Des (Fig. 85) was not in the spotlight—this was clearly a coalition rather than a one-man show. The alliance was a broad church that included scientists, renter associations, labour unions and religious groups. While Des was a charismatic leader who was deeply passionate about social and environmental justice, he was not a scientist or a policymaker, two professions crucial to SDCEA's mission.[3]

[2] Courtesy of 2 Oceans Vibe News.

[3] One speaker was a scientist from the University of KwaZulu-Natal's Department of Occupational and Environmental Health, who highlighted SDCEA's commitment to science and its ability to bring scientists on board its agendas.

Figure 85: Des D'Sa in Phoenix

The tone of the meeting in Phoenix differed from much of the environmental activism I had been exposed to in the West.[4] Des reminded the people in attendance of their constitutional right to a clean environment and encouraged them to file claims for compensation if their property had been damaged by the cloud of smoke that hovered above the city for days after the fire. In conversations with interlocutors in South Africa, I had heard SDCEA being referred to as radical or anti-development, but in Phoenix those labels did not ring true; this was simply a civic group encouraging citizens to claim their rights. Perhaps this is what my colleague had meant when she said that things had been quiet in South Durban, but on that evening, any 'quietness' sounded rather loud as Des' voice echoed across the Phoenix Community Centre.

[4] Such as Greenpeace, which in many parts of the world advances a decidedly 'radical' agenda.

Having recently completed my fieldwork in Pashulok, India, encountering SDCEA was refreshing. Here was an organised activist group advocating for a future without the slow violence of environmental destruction. Moreover, it was not only imagining this future but taking action to achieve it. Could it be I had found an effective alternative to schooling as a way to educate for the Anthropocene? The tension between wanting to espouse the activists I encountered during my research as *the* solution and the need to keep a distance when studying the ideology underlying their efforts was with me throughout my fieldwork.[5] It was tempting to take SDCEA at face value without engaging with it ethnographically.

After all, action—the fostering of which I earlier argued is crucial to educating for the Anthropocene—is at the heart of activism. Yet, I had to remind myself that the history of environmental activism does not uniformly reflect the Arendtian vision of action as an outgrowth of agonistic pluralism. Environmental movements are marked by a history of radicalism (Cianchi, 2015; Pellow, 2014; Taylor, 2008)[6] aimed at advancing various alternative ideologies, ranging from eco-anarchism (Hall, 2011) to deep ecology (Katz, Light, & Rothenberg, 2000) to eco-socialism (Baer, 2018) and other 'aggressive' utopias or 'ecotopias' (Pepper, 2005).[7] Environmental activists are confined to the margins of political life in many societies, and even in countries where environmentalism has entered mainstream politics it has not led to a 'fundamental transformation in the attitudes of policymakers' (Carter, 2018, p. 2).

[5] SDCEA sometimes asked me to participate in its events, including as a speaker at the People's Economic Forum, an alternative event organised during the World Economic Forum on Africa that took place in Durban in May 2017; this exacerbated my dilemma about how much involvement was appropriate. Being seen as too closely aligned with the activists could affect the way I was perceived in local schools and how much access I would be allowed.

[6] Including terrorism in the name of environmentalism (Carson, LaFree, & Dugan, 2012; Vanderheiden, 2005).

[7] Here the concept of ecotopia refers to an aggressive pursuit of a utopian world (a radical political project), whereas the term is used in Chapter 2 as a guiding principle for applied anthropology to help researchers direct their actions at bringing a more sustainable world into being without necessarily aiming to achieve a fully developed ecotopia (a comparatively moderate political project).

It is thus not surprising that formal education systems—often among society's most conservative elements—have a troubled relationship with environmental activism.[8]

The submersion of villages, forests, fields and hills caused by Tehri Dam is a testament to the totality of the Anthropocene and a reminder of the need for education to reinvent itself in the face of this totality. Rotting trees and other organic matter accumulated beneath the dam's surface, which release carbon dioxide and methane into the atmosphere and contribute to climate change (Fearnside, 1995, 2005; Gunkel, 2009; Hertwich, 2013), are only one of the many ways an act of fast violence against a Himalayan valley gave rise to decades of slow violence against the planet. The dialogue with the dead that anti-dam activists engage in is symbolic of resistance to this violence as it seeks to unearth layers of memory that can help mitigate the violence of the 'now'.[9] Meanwhile, the polluted air in South Durban slowly poisons all people living in the city's post-apartheid 'theatres of memory' (Samuel, 1994). From a hill above the industrial basin, people can seem like gladiators in a Roman coliseum, leading a futile fight for their lives against forces greater than themselves—except that these contemporary gladiators are not forced to fight one another and can instead engage in agonistic pluralism, giving rise to actions that battle the slow violence of industrial pollution.

These inter- and intragenerational agonisms shaped the historical trajectory of both the anti-dam activists in Pashulok and anti-pollution activists in Wentworth. Their agendas converged on a number of issues, particularly recognising planetary boundaries and the impact globalising neoliberal regimes has had on the environment. While these movements appeared

[8] Despite the sometimes thorny history of environmental activism, it would be tempting to suggest that educating for the Anthropocene simply means replacing formal schooling with activist education. Activists say they care about social justice, human and animal rights, conservation, indigenous knowledge—in other words, many of the agendas that would arguably need to be part of any effective education designed to address the challenges of the Anthropocene. Previous research shows that place-based activist movements often have local knowledge valuable to social action and generate alternatives to globalised, neoliberal development (Escobar, 2008). But such a substitution might risk simply replacing one ideology with another, swapping a narrative for a counter-narrative. Understanding the implications of activism for education in the age of the Anthropocene therefore requires exposing the cultural and ideological landscapes of activism, as shaped by the contextual forces of space and time.

[9] (Is it possible, I wonder, that historians of the Anthropocene will one day, looking back at our age, find our actions as cruel and incomprehensible as many of us find the Romans and their gladiator fights?)

to be better positioned to address the challenges of educating for the Anthropocene than the schooling systems in their respective countries, they did not articulate an alternative educational philosophy or seek to change the fundamental features of schooling. At my research sites, the worlds of activism and formal education, for the most part, remained disconnected.

Although all the interlocutors mentioned in this chapter self-identify as activists, they are a diverse group.[10] Some are national-level figures I interviewed in the capitals and elsewhere in both countries.[11] In Pashulok, they are community members with a history of involvement in marches, fasts and demonstrations. In South Durban, my principal informants come from the ranks of professional activists working full time for SDCEA. While in Durban it is possible to speak of an organised movement, the activist presence in Pashulok is dispersed. These differences are due to the histories of these two spaces and account for the differential implications of educating for the Anthropocene explored in this chapter.

In the course of my research in India and South Africa, I identified two modalities of agonistic pluralism—that crucial prerequisite to Arendtian politics—which underpin the evolution of both movements. In what I came to call vertical or intergenerational agonistic pluralism, activists 'think with the dead' about ways to envision what future development might look like for the unborn. Lifestyles of past generations enter the conversation about future lifestyles in a temporal arc that links memory of the pre-development past with imaginaries of future progress. In contrast, horizontal or intragenerational agonistic pluralism brings together groups with different identities that cut across race, class, ethnicity, age,

[10] With the exception of those explicitly identified as scholars or journalists.
[11] Including New Delhi, Ahmedabad and rural areas of Maharashtra state in India, and Johannesburg, Pietermaritzburg and Cape Town in South Africa.

language and gender as they seek solutions to common foes that indiscriminately affect them all, such as air pollution or involuntary relocation.[12]

These two manifestations of agonistic pluralism resemble the geological strata comprising the earth's crust. Just as layers of rock reveal stories of bygone eras that enable humanity to engage in a kind of unilateral dialogue with the deep past, an imagining of worlds long gone, vertical agonistic pluralism cuts across layers of sedimented memory and fuels an imagining of deceased others. Relics of these imagined 'others' give life to a dialogic rendering of the past and enable the living to speak across generations and agonise over the future with the (imagined) dead. The uppermost layer of sediment—the 'now' taking place atop the earth's geological strata—becomes a 'theatre of memory' (Samuel, 1994) where intergenerational dialogue gives rise to action. The cultural, political and social landscapes of the now are also sculpted by horizontal agonistic pluralism, which connects the outgrowths of different sediments, and their different interpretations, to a web of subjectivities and allows action 'in concert with others' (Arendt, 2018, p. 232). Where vertical agonistic pluralism builds bridges across layered time, horizontal agonistic pluralism moves through spaces of difference, tightening the social fabric. The vertical shapes a shared sense of culturally embedded horizons of the possible (and the related horizons of the ethical) by tracing the temporality of culture. The horizontal facilitates dialogue with socially and culturally distant others, enabling action in unison with those we initially disagree with but whose humanity we share. Both modalities are crucial not only to agonising about what is to be done but to carrying out the chosen course of action. Put differently, the vertical and the horizontal do not constitute a binary; they represent the logics behind manifestations of agonistic pluralism, logics that are complementary and provide the ingredients needed to act with others, the living and the dead.

[12] In this context, it is useful to think of a generation as people alive at a particular point in time. By applying this definition, intragenerational agonism becomes a bridge to the dead and intergenerational agonism a force unifying those alive in the present across incalculable divides.

In practice, the two modalities operate hand in hand, as I show in my ethnographic accounts of activism in Pashulok and Wentworth in this chapter. Their joint action is what I refer to as vertical-horizontal agonism (this model is explored in more detail in Appendix A).[13]

Understanding this logic and synergistic action enabled me to examine the ways activist spaces in Pashulok and South Durban might fill the void left by the depoliticised, bureaucratised formal education provided by the state, as discussed in Chapter 5. The questions I explore through this analysis include: What are the actions, rituals and symbols shaping activist movements in Pashulok and Wentworth? In what ways might activism position itself as a form of education? What are the roles of agonistic pluralism, historical responsibility and intergenerational knowledge transfer in moulding the cultural landscapes of these activist movements? The multi-sited nature of my research greatly enriched my exploration of these questions. Even though Pashulok pointed me to vertical and Wentworth to horizontal agonistic pluralism, together they illuminate the dualistic character of agonism which might prove to be an important ingredient in educating for the Anthropocene. This is the central argument I advance in this chapter.

6.1 The burden of the past: Sediments of memory and the struggle against Tehri Dam

Anti-dam activism has a long history in India. Mulshi Satyagraha, the first documented large-scale anti-dam movement during the country's colonial era, started as early as 1920 (Vora, 2009). As discussed in Chapter 4, the postcolonial Indian state conceived of large dams as the pinnacle of its development efforts (Khilnani, 2012) which greatly increased the human and

[13] This logic became visible to me thanks to the comparative dimension of my work. The Indian activists' conscious effort not to preserve the cultural heritage of their now submerged worlds in order to allow the past to shape the future alerted me to agonising with the dead as crucial to activism that seeks to heal intergenerational trauma. The activists of South Durban, on the other hand, with their history of organising across groups that had been pitted against each other by the apartheid regime brought into sharp relief the importance of agonising with living others who are socially constructed as fundamentally different from ourselves. It was only after leaving one research site and reflecting on it from the vantage point of my other site that these patterns became visible, allowing me to deepen my understanding of both the vertical and the horizontal on my follow-up visits and to understand that the two kinds of logic operated in both spaces.

environmental costs of these mega-projects. It was not until the 1970s, however, that the *Narmada Bachao Andolan* (Children of Narmada Movement) led by Medha Patkar put the negative effects of dams into the national and international spotlight (Fisher & Patkar, 2017; Jagadeesan, 2015; Nilsen, 2010; Routledge, 2003; Wood, 1993). Yet, despite the efforts of internationally known activists and artists, including novelist Arundhati Roy (Jefferess, 2009; A. Roy, 1999) and filmmaker Anand Patwardhan (2016), the Indian state continues to build large dams. Tehri Dam—the plan was announced in 1965, the dam completed in 2005—is one of the largest and most controversial of such projects. It displaced more than 100,000 people and generated apocalyptic scenarios in the minds of many, due to its location on a geological fault line prone to earthquakes (Rana et al., 2007; M. Sharma, 2009). It is also the site of recent anti-dam struggles. The protest was once led by Sunderlal Bahuguna, a key figure behind the Chipko movement (Rangan, 2000), and garnered national attention (Drew, 2017).[14] However, many consider the protest a failure, as it did not prevent the dam from being built.

My own encounter with India's mega-dams started on celluloid. Researching the history of the Indian state's development, as reflected in documentary films the government produced in the first two decades of Independence (Sutoris, 2016, 2018a), I realised that large dams were part of the 'new' India's genetic make-up. Combining technological mastery, (post)colonial notions of development (India's first large dams were built by the British colonial government), a 'multi-virtuousness' (simultaneously providing electricity, irrigation and flood control) and the sheer visual spectacle of their vastness, large dams were the ideal symbol the postcolonial government could use to rally Indians around a new, nationalist brand of progress. As reflected in the films' low-angle shots of dam walls, the victorious soundtrack music and the grandiose language used in voiceovers, large dams symbolised not only material

[14] While Chipko has been characterised by scholars as a powerful critique of the Indian state's project of modernising India (Gadgil & Guha, 1992; T. Weber, 1988), concerns with employment and local economic development were also an integral part of the movement (Rangan, 2006; see also Mawdsley, 1998), a complexity also reflected in the struggles against Tehri Dam.

progress; they also stood for the Indian nation's ability to master nature and reflected the high modernist (J. C. Scott, 2008) essence of the governments' development ideology.

It is therefore not surprising that large dams also became a symbol of resistance to the successive Indian governments' development policies. The 'video revolution' of the 1970s and 1980s saw a democratisation of access to filmmaking technology, and dams emerged as a prime target of the activist genre of documentary that ensued. Anand Patwardhan's 1995 classic, *A Narmada Diary,* helped establish the Narmada Bachao Andolan in the international popular imagination as a defining movement of late 20th-century environmentalism. The movement's counter-narrative saw dams as the ultimate symbol of inequality, wherein the already privileged benefitted while the poor paid the human and environmental costs. It also pointed to the government's disregard for the rights of India's rural and often indigenous people who lived in the areas most affected by dams. The government's narrative of development and denial of slow violence could hardly be farther from the activists' counter-narrative of social and environmental injustice.

I do not judge which of these perspectives has more merit. Certainly, my experience in the field and my understanding of the situation based on published accounts (Asthana, 2018; Bisht, 2009; Newton, 2008; Rawat, 2013; M. Sharma, 2009; Nachowitz, 1988) made me sympathetic to the views of anti-dam activists.[15] A great irony was that frequent power cuts in the area made it difficult to charge cameras at Seema Primary when making films with school children even while Tehri Dam was generating a thousand megawatts of electricity, most of which went to urban areas. The fact that, more than a decade after resettlement, the school attended by displaced children was still squatting in a shopping complex because the

[15] This was not always the case. Apart from the representatives of the Tehri Hydro Development Corporation (THDC, which operates the dam) who praised the project in an interview with me, teachers at Seema Primary and a number of people I spoke to in the community approved of the project. The most common reason offered for supporting the project was the need for India to keep developing, and many conversations reflected a good deal of national pride in India's economic progress since the 1990s.

government had failed to build a new one spoke for itself. However, I did not seek to establish whether the oustees' grievances were legitimate. Rather, what was significant about their narratives for my analysis was the underlying logic that saw the dam's construction and their resettlement and compensation not as mere economic transactions but as events that affected the local population and the environment in ways that cannot be measured. Put differently, money cannot replace land-with-history. The activist narrative recognises losses far beyond the material, such as the disruption of cultural identities and intergenerational bonds[16]—the kind of loss that no amount of 'development' can ever make up for. Forced relocation, which disconnects culture from its material environment, disrupts a people's awareness of and ability to keep paying their debt to their dead by preserving a way of life and their debt to the unborn by ensuring environmental sustainability. In short, relocation sites do not offer a lifestyle that can sustain a population across generations. It is in the painful awareness of the multi-layered, irreversible nature of loss that the 'counter' in the activist, oustee-centred counter-narrative of India's development lies.

Even though the clash of the state and activist perspectives was at the root of the protests against Tehri Dam, the movement differed significantly from the more widely publicised Narmada Bachao Andolan in both aims and outcomes. During a short break from my fieldwork in Pashulok, I took a train to Delhi—where electricity from Tehri powers air conditioners and air purifiers and where drinking water from the dam finds its way into taps that are dangerous to drink from—to speak to activists who remember both movements and could shed light on their differences. The city's corridors of power, enveloped in a cloud of toxic smog, have become the battlefields of justice and sustainability for many veterans of India's anti-dam movements. Walking into the office of one of them, Arnab, I was met with a mixture of

[16] The issue of culture loss is not merely of concern to anthropologists; it has been conceptualised within legal frameworks with respect to 'cultural property rights' (Kirsch, 2001).

kindness and suspicion. While many scholars have generated research broadly supportive of the activist position, some have questioned the involvement of middle-class urban 'outsiders' like Arnab in grassroots protest movements. When I asked about his motivations, Arnab told me such questions were 'mischievous' and encouraged me to consider to 'which side' my research would contribute. This interaction was a reminder of the tension between participation and observation inherent in the ethnographic gaze: Could I produce a thick description of the activist narrative without becoming an activist myself? If not, would this not make it impossible for me to access competing narratives while trying to paint a fuller picture of the cultural and political landscapes navigated by young people trying to make sense of India's dams, sustainability and development?

Opening our conversation, Arnab flatly noted that the movement against Tehri Dam did not succeed because it did not mobilise enough people. 'The other thing is that Tehri raised much more technical issues, actually', he noted, pointing to the dam's location on top of a geological fault and concerns about safety due to earthquakes. He maintained that these issues were not acknowledged by the government. Looking out the window, as if he were focused on a distant object, he said, 'They will set up a committee and if this committee says that this is not safe then they will set up another committee, then they will set up a third committee and so on*'*. The decision to proceed with the project was based on the benefits to interest groups rather than to the country at large. Arnab recalled that, in the late 1970s, Indira Gandhi, then India's prime minister, 'actually wrote on the file of Tehri that this project will only benefit the contractors. I haven't seen that in writing but a planning commission member, Arun Ghosh, told us that he has seen it—and he would have seen it if [he said] he has seen it'. I heard this anecdote many times during my fieldwork. In the activists' imagination of the past, Indira Gandhi—whom many remember as an authoritarian figure responsible for the emergency of 1975-77—has become a symbol of the benevolent state. No one seemed to notice the

contradiction at the heart of the anecdote: if Indira Gandhi disapproved of the project, why did she not stop it?

By the end of my fieldwork, I understood that, in the activist consciousness, Tehri Dam symbolises a corruption of the state in which the well-being of many (alive and unborn) is sacrificed for the financial profits of the few. For Sunderlal Bahuguna, for example, 'the erection of Tehri Dam presented an ecological, social, and religious challenge. He argue[d] that when the Ganges flows in its natural course, it benefits all, irrespective of caste, creed, color, or economic circumstances. When it is dammed, it becomes the possession of the privileged and powerful who dispense its blessings on a partisan basis' (James, 2013, pp. 172–173). Yet the state responsible for the damming was not the enemy. Representing the laudable, hefty ideals of Indian Independence, including the constitutional right to a clean environment, the state was simultaneously the bearer of hope rooted in the histories (and mythologies) of the Independence struggle and a perpetrator of atrocities against India's natural environment and its most vulnerable peoples. The history of the state contradicted the activists' memory of its actions and, despite the state-sponsored violence of many types captured in these collective memories—slow, fast, symbolic, literal—history still won. The activists were not anarchists advocating to dismantle the state; they saw themselves as being truer than politicians and bureaucrats to the ideals of the constitution the state was supposedly built on. Theirs was a politics of hope that reflected a symbolic world order in which ideas of the past had the potential to transform the co-option of governance by nondemocratic forces into the humane state freedom fighters once pictured as India's glorious future. For many of these activists, Gandhi and his contemporary incarnations such as Sunderlal Bahuguna were a metaphor for this not-yet-realised, overdue future they felt was worth fighting for. Indira Gandhi, by association with her father Jawaharlal Nehru, retained a degree of impunity in this imagining of history as future, thus she could be exempt from blame for Tehri Dam despite being the prime minister

overseeing the project. But the spatial dimensions of this imagination were uneven, and the localised activist consciousness in spaces like Pashulok was more concerned with the dead (Tehri residents and their natural environment) than the Dead (freedom fighters and their ideas about India's political future). Both the dead and the Dead belonged to a world that was simultaneously beyond and within reach, that blended an imagined past with horizons of the possible, where hope met despair. This fusion is at the core of the activists' intergenerational (vertical-horizontal) agonistic pluralism. To understand why a dialogue with other generations is key to their struggle, we must first understand the trauma that gave rise to the oustees' activism in the first place.

6.1.1 The cultural trauma of dispossession in a Himalayan valley

It was not every day that I saw oustees in Pashulok get emotional. Whether it was true that these *pahadis* were the 'tough people' of the mountains, as the stereotype in India goes, or that the language barrier made it hard to build trust between us, I saw a lot of stoic faces during my conversations with older people in Pashulok. But this was not the case with Rahul, a man in his sixties with a wrinkly face, a spattering of gray hair and a gentle, soft voice that did not seem to match his strong frame.[17] A veteran of grassroots activism, he could recall events from the earliest days of the anti-dam struggle but he seemed to wish to leave much of this history behind. Yet some memories could not easily be forgotten, and when I asked Rahul to elaborate on his comment that the activist history was a painful one, he told me a story that took place in the early 1990s:

[17] Although the narrative that emerged out of my fieldwork relies on the perspectives of many interlocutors, two voices are in the spotlight. While Rahul is a local resident who himself was displaced by the dam and whose struggle against it appears to have been a question of survival, a fight against an existential threat, the other informant, Rakesh (who was also my translator and field guide), was more of an outsider. I have described my relationship with him in the ethnographic dilemma preceding this chapter. While I interviewed many other activists in Pashulok and New Tehri and the surrounding areas, their perspectives invariably echoed those of Rahul and at times also of Rakesh, whose narrative was simultaneously thicker and thinner due to his dual engagement with national-level debates and the realities of the Pashulok community.

> *Against the building of Tehri Dam and around the issues of our resettlement, we had done a protest in Tehri. Sunderlal Bahuguna was leading us. So to scare the government we had gone where they were building the road. There was a guy amongst us, Chimnu Bhai (from the musician caste), so that the government listens to our demands and does proper settlement. The armed police over there started hitting us with their sticks. Chimnu Bhai was injured on the head and all his instruments broke. Some women were also with us, and they were about to fall down the Bhagirathi valley. There was a slab under the tunnel. If that slab was not there, they would have fallen down. So that is a very scary memory. We were only asking for our rights, but what did we get. We could have died that day, but we got saved.*

In such anecdotes, the slow violence of dispossession and displacement and the decades of uncertainty and anxiety that preceded it turned into the fast violence of clashes between activists and police, each representing a different narrative of development and citizenship. The trauma of displacement was compounded by the trauma of state violence. Ultimately, some protests brought concessions from the government, but these were short-lived. Rahul told me that, following the initial protests, the government increased each family's compensation from 2.5 to 5 lakh [250-500,000] Rs; however, they did not offer any land. 'Our situation was that of nomads', he said, eyes staring into the distance. Government promises, Rahul explained, included a government job for at least one person from each resettled family, free electricity and subsidised water—none of which was fulfilled. 'When we came here, we realized that the situation was completely opposite of the promises made to us. There was no provision for living, food, nothing. This place was like a jungle; there was just marking of the size of the land (2.5 bigha) . . . We are still fighting for land rights'.

The predicament of India's post-Independence dam oustees was not just worse than the government claimed; it was often so grim that the appalling treatment of the Bhopal casualties, discussed in Chapter 4, no longer seems shocking when put in the context of the plight of the oustees and other victims of 'development'. The memories of activists in Pashulok strongly

suggested that Tehri was no exception.[18] According to a report of the activist organisation MATU (2002), the inadequate policies were highlighted by a government committee set up in 1998 under the leadership of Hanumatha Rao, but the recommendations for redressing the situation were ignored. Rakesh's critique was even more scathing: he called the rehabilitation process a 'land scam' because in the name of resettlement the 'forest land' at Pashulok was rezoned as a residential area.[19] Since many oustees ended up selling their land (informants' estimates ranged from 40%-60%, but no official statistic is available), Pashulok effectively became less of a rehabilitation site and more of a new urban development where, in Rakesh's words, 'everyone is a property dealer'. This signalled an almost total breakdown of communities—the very outcome activists opposing the dam had feared for decades.

For my interlocutors, activism was about stopping the dam and, when this failed, about holding the government accountable for its own promised compensation for the oustees.[20] Stories of marches, fasts-unto-death and violent confrontations with state authorities were still alive in the minds of local activists during my fieldwork in 2016-17.[21] But, as more than a

[18] The activist narratives directly contradicted the statements of a representative of THDC, the government-controlled company that built the dam and is in charge of operating it, who claimed in an interview that the rehabilitation of the resettled population in Tehri was not only carried out in accordance with all legal frameworks and that all promises were met, but that this effort was in fact so exemplary that the Indian government based its nationwide rehabilitation policies on the example of Tehri. Indeed, some of the community members I interviewed in Pashulok who had no history of involvement with the activist movement claimed that the compensation was generous, one even going so far as to liken it to 'a true Marxist revolution' because oustees received the same amount of compensation regardless of their caste, class and wealth prior to resettlement. As described in the previous chapter, the teachers at the Pashulok school where I undertook my fieldwork also viewed the activist unrest as a manifestation of nostalgia for the past and greed, arguing that the compensation the oustees received was more than adequate. However, this belief was rooted in a rather narrow definition of compensation that assumed all loss could be quantified and compensated for, in contrast to a more holistic definition used by the activists, as discussed in the next section.

[19] A self-described Gandhian, a veteran of anti-dam protests in different parts of India, a former associate of Sunderlal Bahuguna and Medha Patkar's 'comrade', Rakesh offered a perspective that reflects a long history of working with local communities. Yet, his engagement with the Pashulok community had been sporadic, which made him simultaneously an insider and an outsider among local activists. Rakesh appeared to be motivated by his convictions about social and environmental justice; to him, Tehri Dam was a manifestation of a larger system he has dedicated his life to fighting against.

[20] They did not seem concerned with the rich history of struggle against dams on the holy river Ganges on religious grounds by Hindu activists (Drew, 2017; Mawdsley, 2005; M. Sharma, 2009, 2012).

[21] Organised resistance to the project is almost as old as the idea of the dam itself. In the late 1960s, shortly after the project was conceived, the emerging anti-dam movement had the support of Kamlendumati Shah, the local member of Parliament and wife of the Maharaja of Tehri-Garhwal Narendra Shah (James, 2013). A 'massive anti-dam rally' took place in 1977, one activist told me, and the *Tehri Bandh Virodhi Sangharsh Samiti* (Anti-Tehri

Figure 86: The 'property dealership' of Pashulok

decade had passed since the dam's completion and the large-scale population relocation, the intensity of the protest movement had declined and only those involved in the struggle for land rights still considered themselves activists. These Pashulok residents set up an NGO to represent their rights with government authorities and conducted fasts and marches to highlight the injustice of not being given formal rights to the plots of land on which they built their

Dam Struggle Committee) was formed. It was, however, not until after the death of Indira Gandhi in 1984 and Gorbachev's visit to India in 1986 that the project took off, to a large extent due to Soviets' interest in the dam and their provision of technical expertise to build it (Dogra, 1992). As construction moved ahead in November 1989, Sunderlal Bahuguna and his wife set up a *kuti* (a small hut) near the construction site and remained there in *satyagraha* (nonviolent resistance), insisting that theirs would be the first submerged dwelling if the dam proceeded, which helped attract nationwide media attention to the struggle against the dam (James, 2013, p. 175). In his foreword to an edited volume on environmental protection, written while living in the kuti, Bahuguna (2000, p. v) observed: 'I am writing these lines sitting on the bank of the River Bhagirathi (Holy Ganga). About 200 metres downstream, the construction of the 263-metre high Tehri Dam, the highest in Asia, is proceeding on a war footing. The running of trucks, moving of bulldozers and the thundering sounds of heavy blasting, day and night, makes me feel as if I am sitting in a battlefield, where man is at war with Nature in the name of development'. While resistance continued well into the 1990s, the movement did not manage to stop the dam project, as Arnab told me in his office on a sunny day in Delhi.

houses.[22] My interlocutors, however, noted that this movement had only been active in the six months before my fieldwork; before then there had been no major protests for years.[23]

My account of activism in Pashulok implies that the enduring legacy of the anti-dam struggle is the oustees' effort to get fair compensation. This is consistent with the views of Pranay and other teachers at Seema Primary, discussed in Chapter 5, who stated that the goal of the activist agenda was to secure more land and money for oustees. However, after immersing myself in the site, I came to understand that this is a distortion of both the activist agenda and the underlying motivations. The ability to mobilise after years of inactivity suggests a generative space of sedimented memory that enabled collective action. Even during quiet times, activists retained their political socialisation rooted in the intergenerational trauma of displacement, a recognition of the debt to the dead and to the unborn, and an acute awareness of both the material and ethereal losses caused by resettlement. This is analogous to what Checker (2005, p. 116) referred to as '"quiescent politics," that is, the retention of political awareness, leadership, and organizational skills in practical consciousness during seemingly dormant periods', which she observed in her ethnography of environmental activism in Hyde Park.[24] Such 'quiescent politics' is possible thanks in part to an ongoing conversation with the dead in negotiating the future for the youth (and the unborn), which I explore in the next section.

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[22] The organisation was called *Visthapit Samanvye Vikas Samiti* (Rehabilitation Coordination Development Committee), Pashulok. According to Dinesh, one of my informants who was involved in setting this up, 'our people held a meeting and we discussed that our children's future was in danger. So, everyone in the village got together and started a demonstration. When we tried to reach out to the government for our land rights, but it fell on deaf ears, we had no choice but to protest. People from 16 villages, people from different valleys, who were from different backgrounds but had been resettled in the nearby areas, got together to protest. Women, old people, young people, everyone supported us and we started a movement called *Tehsil Gherao* [Surround the Tehsil or administrative house] and did it 2-3 times. We were continuously going to our secretary and were passing on the message to our representatives through the media and other forms. Women also played an important role in this; they did candle marches, sat for hunger strikes, contributed in the Tehsil movement, and so on'.

[23] As one of my activist informants told me in March 2017, 'in Pashulok they fight for land rights in last 5-6 months, I feel that was also supported by some, one political party . . . because the election is happening'. Remembering events preceding the local election, another activist noted that 'the Election Day was also nearing, and we had said that if we are not given land ownership then we will boycott the elections and no one from us will vote. We had a slogan, "No Land Ownership, No Votes", and we took out a huge rally'.

[24] In Augusta, Georgia.

6.1.2 Histories lost and found: Thinking with the dead about the future of progress

The past throws a long shadow over the lives of those in Pashulok who are old enough to remember life before resettlement. While activist efforts are aimed at receiving what they see as just compensation from authorities, at the root of their criticism of Tehri Dam is the failure to recognise the history that, in their minds, has been submerged along with the villages of Tehri. The grief for lost histories came into sharp relief for me when I visited the town of New Tehri[25] to interview local activists.[26] Sitting in a room crammed full of children, mattresses, cooking utensils and the heaviness of memory, I listened to Arjun, an activist his comrades described to me as a scholar and historian. We were sitting in his two-room house that appeared to provide shelter to a dozen family members, with Tehri Dam below us on the slopes of the valley. Rakesh and I climbed many stairs up to Arjun's house from where our driver dropped us off and, despite my relative youth and being used to climbing steep slopes, I found myself catching my breath at the top of the stairs. 'A city of stairs', the locals came to call New Tehri, a town built by the Indian government to replace one submerged by the dam.

The place truly felt like a distorted replica, an outgrowth of the narrow imaginaries of government technocrats rather than a town with an organic history. Its Himalayan backdrop

[25] New Tehri was affected by the construction of the dam in different ways from Pashulok. Being located in the vicinity of the dam, many of the complaints mentioned to me in interviews were related to poor water quality (which was pumped from the dam) and the spreading of disease, as bodies were often cremated on the banks of the dam. For a more comprehensive overview of the difficulties suffered by oustees who were moved to New Tehri, see Newton (2008).

[26] Due to the social and geographic dislocations caused by resettlement, many activists who had previously worked together were scattered after the dam was built. Rakesh repeatedly pointed out to me that there was a lack of cohesion among the activists and that he saw his role in bringing people together in a united struggle. This seemed accurate to me, and there did not appear to be a network of activists connecting the various rehabilitation sites. Nevertheless, the activist consciousness was shaped by a common history, and some of the activists who were resettled in Pashulok had previously worked with some who resettled in New Tehri. There also was some circulation of knowledge between these activist cells. Therefore, it was important for me to include New Tehri in my fieldwork; even though it is some 80km from Pashulok (3 hours in a jeep, given the narrow winding roads), the insights from activists there helped me understand the activist consciousness in Pashulok better.

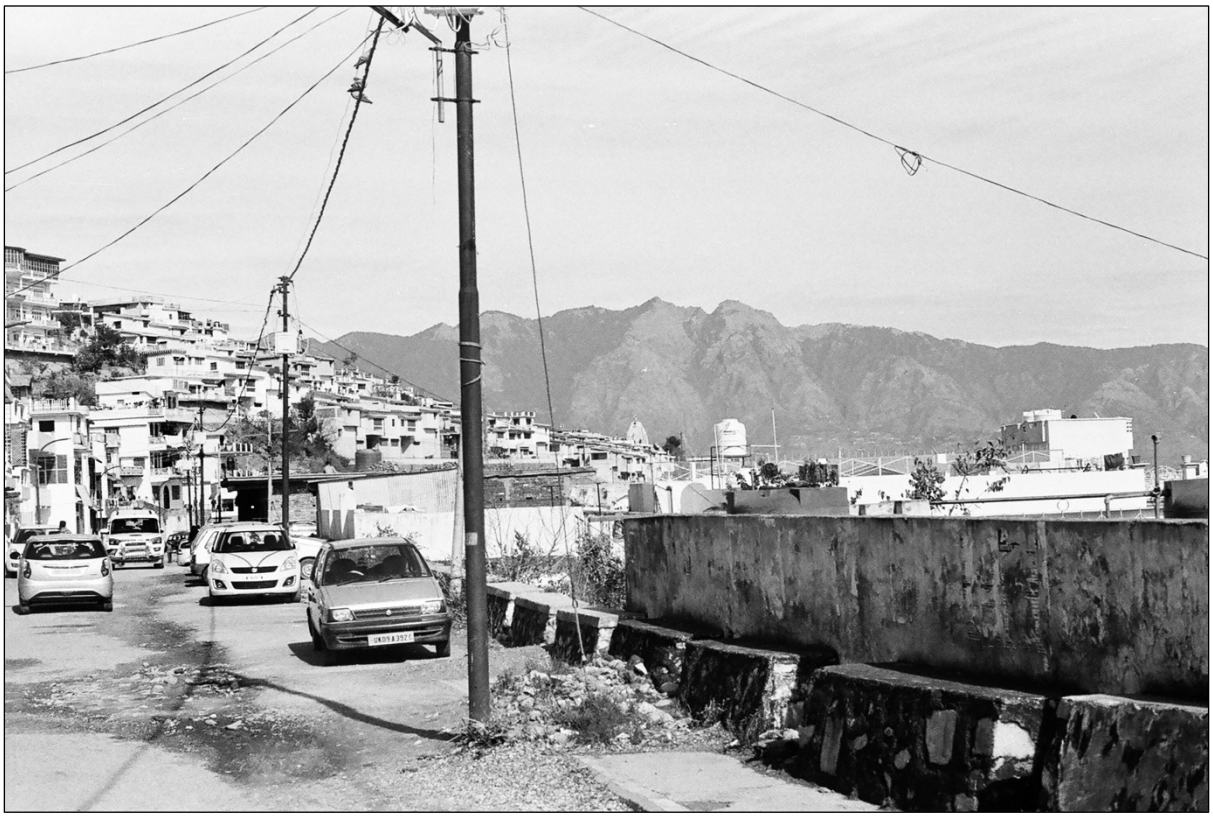

Figure 87: The emptiness and artifice of New Tehri town

reminded me of Kathmandu, a city where I lived for several years as a development worker, but the mountains seemed to be all the two places had in common. Unlike Kathmandu, with its web of bustling alleyways, New Tehri felt quiet, almost deserted, as if the neat lines of planners' blueprints for the city's streets remained just that, a lifeless artifice (Fig. 87). In a scene before me, a cow seemed to be 'policing' the entry to a staircase (Fig. 88), which no one in sight seemed interested in climbing, making me wonder if the cow was the incarnation of a Hindu nationalist state watching over its development project—the development of a human-centred, anthropocenic world in which people had no desire to participate.

Arjun's face showed his pain as he told me about the richness he believed was lost along with the old town of Tehri. He spoke of a civilisation that had inhabited the valley for thousands of years. 'This place, along with four or five other important places, is even mentioned in Kedarkhand, which is an ancient scripture—a part of a Skanda Purana,[27] which

[27] *Purana* is an ancient literary text of the Hindus; the Puranic literature consists mostly of myths, legends and traditional folklore.

Figure 88: A cow 'policing' a stairway in New Tehri

signifies that this society is very old and traditionally rich', he told me as his children, lying on their beds but wide awake, listened in what could be described as a 'live' intergenerational transmission of cultural knowledge. I wondered how often stories about pre-dam times were told in this house and whether my presence had brought it about, but the children's eyes were wide open as they hung on Arjun's every word, which made me think they had heard the story before. 'It has been here since prehistoric times', Arjun continued, 'a time that is so old that it has mention in Puranas but no mention in history books that are known to us. Before history started getting written, Tehri was inhabited by people of the Yaksha,[28] Gandharva,[29] Kinnar lok tribes'. But this was not Arjun's main point. He was building up to a conceptual challenge to the state's notion of rehabilitation, which eschewed this richness. His references to cultural

[28] *Yaxha* is the name of a broad class of nature-spirits, usually benevolent, who are caretakers of the natural treasures hidden in the earth and tree roots. They appear in Hindu, Jain and Buddhist texts.
[29] *Gandharva* is a name used for distinct heavenly beings in Hinduism and Buddhism.

loss—folklore, music, rivers—represented the activists' palpably emotive narratives and ritualistic retelling of loss and rupture:

> *That's why it is said that it isn't just the people who are displaced from the place. When the policy was made to rehabilitate people, it mentioned figures—the number of families, the number of people, the amount of land being rehabilitated. But it cannot quantify or evaluate the cultural damage, or damage to the river, water, the banks, the wood flowing in the river, the grass and trees growing beside the river. No rehabilitation policy mentions the trees, the river, the society, the folk songs, or the history. History, culture, trees, river, community, family relations, and society relations—everything was displaced. Even the language was displaced. Now we do not use that language here anymore.*

Arjun was not merely critiquing the government's reluctance to consider the numerous losses caused by its mega-project. He suggested that the disruption of culture caused by the dam rendered futile any attempts to 'rehabilitate' history, because this history had been displaced, disconnected from space. Moreover, such an effort would be not only futile; its ethical implications would not be considered by the government, whose temporal narrative of development began with the Tehri Dam and shunned all that was submerged. Put another way, the state failed in its ethical duty to rehabilitate, due not only to its inability to retrieve lost histories but to its lack of reflection on what this meant for the oustees and for humanity at large.

Arjun's register of the various losses, those obliterated by the dam and those made invisible by the state's compensation scheme, might seem reminiscent of the romanticising and essentialising of the past found in much early anthropological writing about indigenous populations (Pels, 2008; Said, 1979). It is certainly true that activists I talked to in the field often spoke of the pre-dam past in uncritical terms. I wondered to what extent the violence of forced resettlement was overshadowing caste and ethnic inequalities of the pre-displacement past. But, even if the activists' imagination of the past was overly optimistic, their grief was

fuelled by more than mere nostalgia. Back in Pashulok, Dinesh, an uncle of a student involved in the filmmaking workshop, reminisced about what life was like before resettlement, recalling the love and care residents showed one another in old Tehri. 'Now here we are brothers but we aren't even able to sit together. There the villagers would gather and chit-chat', he recalled. Remembering his childhood, he noted that 'we would see our elders in groups of 5-10 sitting together. Now if we ask someone to sit, they will probably say we don't have time. Even I will have the same response. At that time, people had time and figured out things together'. This idea of no longer having time did not appear linked to an accelerated pace of life as it might be in the post-industrial societies of the Global North but to a spatial reconfiguration of the community that was disconnected from the space that had evolved organically over generations in old Tehri to facilitate a culture of sharing, exchange and care for the commons.[30]

The yearning for a lost sense of community was at the heart of most of my informants' concerns in Pashulok, who invariably spoke of community in the past tense.[31] Submerged villages and extended families were not resettled together, resulting in the geographic separation of relatives and neighbours who often ended up in rehabilitation sites dozens of kilometres apart. All my informants described the sense of alienation this created in Pashulok and the difficulty of keeping in contact with their relatives and friends. Most poignant were the comments about what this fragmentation meant for intergenerational knowledge transfer. When I asked Rahul what he learned from his elders in his youth, he told me:

> *It was a value that whatever state one is in at the moment; one should make sure that the next generation is in the same state. To maintain stability, which will give the next*

[30] It could be argued that what is happening in Pashulok is likely to lead over time to the 'tragedy of the commons' (a situation where individuals who act in their self-interest end up undermining the common good by damaging shared resources), something that the developed world has already seen on a mass scale (Hardin, 1968), and that is arguably a key mechanism of anthropocenic slow violence.

[31] Even Rakesh, an 'outsider' in this community, recalled personal experiences of shared solidarity. He told me that at the time of the Gujarat riots of 2002 (discussed in Chapter 4), he was campaigning in Tehri. Scared about the possibility of an outbreak of communal violence, he braced himself for the worst. But 'one person, [name], he said, he assured me, he's from a Brahman family, if something will happen, this will happen on our shoulders, these are our brothers, nothing will happen with them. Such a big thing.'

> *generation the same freedom that my ancestors gave me. The same culture, the traditions should be maintained . . . But our ancestors were foresighted and they had planned in such a way that if we were in dire need we could depend on the land we had. We could stretch ourselves to meet some emergency needs. But here we have nothing . . . Progress was not individualistic; it was for the whole society. But that does not exist now.*

Many informants remembered their past society as one of sustainability based on non-individualistic progress and solidarity, and they were determined to pass this on to the next generation. Rahul pointed out that the new generation embraced different aspirations. 'Because the young blood can drift anywhere, so our ancestors told us that before making any big decision, one must be careful not to destroy everything one already has. That in your imaginary leap, don't end up losing your present'. Indeed, the 'imaginary leap' of Tehri Dam, the expectation that it would bring about development, cost the people of the submerged villages and towns their pre-resettlement present. It also endangered the conversations with the dead that had helped maintain a social equilibrium of sustainability for centuries.

What is striking in these narratives is a recognition of the activists' ongoing challenge to the government's view of development as equated with progress. For activists, the state's notion of progress was a narrative of deceit. They opted to think about the future with the dead.[32] Thinking about what enabled their predecessors to sustain their lifestyles in the now submerged areas of Tehri for centuries is an important part of the puzzle of sustainability for these activists. The trauma of resettlement makes it difficult for them to pass on to their children

[32] The idea of 'progress' being not fully forward-looking and partly rooted in looking back was first suggested to me by Newton LaJuan in 2010, when he was the director of the Alele Museum in Majuro, Marshall Islands, and I was working on a documentary film about development and education in the islands. Newton invited me to his property on a remote island, where we spent several days talking about how quickly the place was changing and what progress meant in this context, and where he demonstrated to me how he was combining agricultural practices of the old with lifestyles of the new. Newton convinced me that it was possible to get away from the modernity/tradition dichotomy often seen in academic texts, and that his version of 'looking back' was very different from the romanticism and Orientalism of the colonial gaze. These insights, for which I remain grateful, have accompanied me through my work and research ever since; at times during my interactions with activists in both Pashulok and Wentworth, I felt as though I was speaking to Newton. For all the place-based wisdom of his words, they seemed to transcend place and reverberate across space.

the values and knowledge they received from their elders. This is in part because the activists had to undergo a major transition and still are struggling to adjust more than a decade after arriving in Pashulok. Rahul repeatedly stressed to me the richness of flora and fauna in the village he was displaced from.[33] He also pointed out that in Pashulok the oustees could not cut down any trees due to strict laws, whereas back in his village the community did its own safeguarding of natural resources and allowed each family to cut down one or two trees annually, at the same time ensuring that new trees were planted every year. Perhaps even more importantly, social resources were also in short supply in Pashulok. 'We could look up [our friends in nearby villages] for support in case of need. Now we are in an opposite situation, that if I even need to go there for help, first I need to make sure I have the money to go there. Those connections are far off now'. Aside from their impact on the oustees' quality of life, these changes made it difficult for the older generation to sustain transgenerational knowledge transfer and engage their children in vertical agonistic pluralism.

The task is further complicated by the breakdown of religious and cultural traditions and rituals. Rahul recalled *pandav* dance performances held at night in the village temple for which the whole community would come together. 'It did not rain in the mountain, so for irrigating our crops we would worship our deity *narsingh.* So these traditions stopped there only, now we can't practice them. We are modernizing now and forgetting our old customs'. The activists seem to be the ones in this community who try to keep the intergenerational dialogue alive—despite a social climate, an education system and a state not conducive to such an effort.

One theoretical concept that helped me understand the activist efforts to 'rehabilitate' history in Pashulok was Ricœur's notion of traditionality. In Kearney's interpretation, this idea

[33] Botanical Survey of India conducted a survey of flora affected by Tehri Dam prior to flooding the valley and concluded that 12 rare species were likely to be 'disturbed'. The government certainly was not disturbed about the flora: 'None of these have any medicinal or commercial use. In any case, a botanical garden is being developed to preserve these rare species of plants' (Govardhan, 1993, p. 293).

represents ‘a dialectic between “sedimentation and innovation”, . . . [a] temporalizing of history by means of a dialectic between the effects of history upon us (which we passively suffer) and our response to history (which we actively operate)’ (Kearney, 2004, p. 62). After losing the fight against construction of the dam, the activists had no choice but to suffer the consequences of resettlement. Their chosen response lies in an attempt to keep their history alive, but this effort constantly runs into obstacles caused by the many spatial, cultural, social and economic dislocations affecting the oustee community. As a result, local activists engage in what Kearney refers to as a fusion of horizons (Kearney, 2004, p. 62), which allows them to retrieve lost histories of hope without imposing on them the present consciousness of despair. Sedimented memory resurfaces and is fused with the present, resulting in forward-looking innovation. The activists do not expect the young to relive their pre-displacement memories; youth are still encouraged to take an ‘imaginary leap forward’ but cautioned that it should not make them forget the past. A temporal arc links sedimented memory with imagined futures. ‘The past is thus opened up as a historical horizon which is at once detached from our contemporary horizon and included in it’ (Kearney, 2004, p. 62). In Ricœur’s words, traditionality suggests that ‘the temporal distance which separates us from the past is not a dead interval but a *generative transmission* of meaning’ (Ricœur, quoted in Kearney, 2004, p. 63). It is precisely transmission of the symbolic values attached to their sedimented memory that the activists hope to engage in with the young in order to expand the horizons of the possible for children who are largely excluded from India’s ‘development’ (cf. Sriprakash, 2016).

The activists, who ‘speak for the dead’ in this dialogic exchange, seek to carry forward the values they believe were enabled by the dead’s ways of life, such as solidarity and care for the commons They hope that as future generations move along the path of development the young people will find ways to integrate these values, as the activists see them, into their new lifestyles. What this dialogue transmits, therefore, is not a literal meaning of memory (which

would risk passing on a nostalgic or romanticised picture of agriculture-driven village life) but its surplus meaning: the hidden values, beliefs and insights into the human condition, as identified by activists living in the present,[34] that the dead possessed without necessarily being conscious of them.[35] This is where government thinking about development is at odds with the activists' perspectives, as the state's idea of development relies on literal meanings gleaned from the 'developed' Global North—economic growth, factories, power lines and dams—rather than the surplus meanings found in the intellectual, social and economic history of development as viewed through the prism of distanciation.[36] Surplus meaning might include notions such as welfare, prosperity or happiness—timeless ideas that need to be reinvented constantly through the sedimentation/innovation dialectic of traditionality, an effort that lies at the root of activist consciousness in Pashulok.

Many forces, however, act against the young's ability and willingness to be receptive to their elders' efforts to build intergenerational bridges through tradition. As the previous chapter has shown, the schooling the young people are receiving in Pashulok is one obstacle but there are other forces at play. According to Rakesh,

> *it's not because of Tehri Dam, it is because . . . see, these people are not living in some corner, they're living in this world, and this world is for development, for so-called progress and progress doesn't mean fresh water, progress doesn't mean fresh air, progress doesn't mean free-flowing river, progress doesn't mean beautiful scene, plain hills, open hills. Development means big infrastructure projects, development means big dams, natural resources are resources to use, natural resources are not just to, if*

[34] As it is the activists of today who are engaging in the hermeneutics of memory, they are identifying values in past worlds that they see as relevant to the challenges they (and their children) face today or are imagined to face in the future. The 'surplus meaning' therefore lies not only in the 'hidden ontology' of the past (i.e., the values the dead possessed without being consciously aware of them), but also in contemporary interpretation of the past, as captured in memory through the 'detour' of distanciation. The latter has the potential to generate meanings independent of the ontology of past worlds or historical 'truth'.

[35] The pace of socio-cultural change was arguably slower for many generations who lived in Tehri prior to resettlement than for the current generation which went through the trauma of relocation and the related cultural dislocation. It is therefore possible that the dead were not fully aware of some of the values and beliefs that now appear lost, as they only became conspicuous by their absence (or, rather, the absence of material and social environments needed to nurture them) after the damming of Tehri and resettling of the local populations.

[36] The concept of distanciation is discussed in Chapter 1.

you're allowing a river free, it means you're wasting water, this is their mindset and this is what our education system teaches them.

Beyond referring to sedimented memories of a pre-resettlement past, the images of fresh water, fresh air, a free-flowing river have symbolic meaning. By pitting these images against the government's dominant notion of progress, Rakesh suggests that India's development is not only incompatible with stewardship of the natural environment but, by disconnecting memory from the 'theatre' in which it was shaped, is also an obstacle to intergenerational dialogue. To Rakesh, the locus of the definition of development is shifted outside the local community and the community is no longer in charge of shaping its own development trajectory. Prashant, another anti-dam activist I talked to in nearby Dehradun, sees this transformation as a reflection of a larger trend. He points to the urbanisation of India and China as contributing to the disconnect of people from nature, which means that while the generation with direct memories of pre-resettlement life might feel a sense of loss—and therefore can be critical of the government's dominant development paradigm—the next generation is simply not feeling that—or perhaps is feeling it as a disembodied form of nostalgia. This pessimism is echoed by Rahul, whose view on the future of his community in Pashulok is very bleak:

***Peter**: What kind of future do you think is possible in this place?*
***Rahul**: We hope to make this place good.*
***Translator** [Rakesh, who translates and adds]: But in reality, what is possible?*
***Rahul**: It is very difficult. Imagine this is a big garbage dumping ground and we are asked to clean it.*

The idea of a 'big garbage dumping ground' not only refers to the physical state of the environment in Pashulok, as perceived by Rahul, but also symbolises the uphill battle the activists are fighting against the forces undermining intergenerational dialogue. While it might seem their efforts are doomed, their very presence suggests otherwise. The trauma of displacement highlighted the importance of talking with the dead about the future of progress and teaching the youth about the importance of such vertical agonistic pluralism. It is too early

to tell what this might lead to and whether it might help to clean up the 'big garbage dumping ground' of destruction and short-sighted ideologies at the heart of the high Anthropocene moment.

It became clear to me by the end of my fieldwork that these activists walked a fine line between nostalgia for the past and vertical agonistic pluralism. They were not simply clinging to tradition but engaging in what Ricœur and Kearney (2004) call the hermeneutic imagination. To engage in such an imagination 'inside tradition' means 'to be simultaneously outside it. This is one of Ricœur's most compelling insights: to imagine ourselves as we truly are is to imagine ourselves otherwise' (Kearney, 2004, p. 73). My conclusion about the nature of activism in Pashulok is that it is underpinned precisely by an imaginary whose temporality extends across layers of sedimented memory into a conversation with the dead, and this conversation, in turn, informs the coalition-building needed for effective activism. This is one way to 'imagine ourselves otherwise'. Activists in South Africa, too—while cutting across sediments of their own, many of them (dis)coloured by the legacy of apartheid—brought the dead into their imaginaries while speaking across social divides to the alive who were, in a certain sense, radically different from them. The horizontality of 'imagining otherwise' was particularly pronounced in South Durban, and this is where I turn next in this exploration of the interface between activism, education and the Anthropocene.

6.3 The common enemy: Challenging environmental racism in South Durban

'Why would a guy from Cambridge come to a place like Wentworth?' asked one of my interlocutors in South Durban, a scientist with a doctorate. I believe his question was motivated in part by curiosity about how I found my research site, but I also sensed him wondering what I could possibly discover here. A few months later, writing up a conference paper summarising my preliminary findings, I came up with the title, 'From Intervention to Inspiration: Shifting

Imagination of Sustainable Development to the "Margins"'. In the immediate aftermath of my fieldwork, it seemed to me that such a shift—corresponding to proving wrong my interlocutor's apparent assumption that little could be learned in Wentworth—was precisely the underlying political goal of my project. I believed that, rather than being in need of outside intervention, spaces like Wentworth in fact had the potential to inspire ideas, approaches and policies that could shape the landscape of education across the Global North/South divide. Reflecting on this idea with more temporal distance, I argue that outside intervention and inspiration are not mutually exclusive, and that the title of my paper expressed more the hypothesis with which I entered the field than the ethnographic realities I experienced during my fieldwork. While it is true that communities living on the fenceline of industries (or communities displaced by dams) might be more politicised around environmental threats than much of the rest of the world, the demands of activists often are precisely *for* outside intervention because the collective agency of these groups is simply not sufficient to enact change at the scale needed to resolve the underlying causes of the environmental issues. Put differently, it is not necessary to choose between seeing a space as troubled and in need of help (which can easily slip into a [post]colonial paternalism and condescension) or viewing it as having qualities that cannot be found elsewhere (an approach that can result in a romanticising of often harsh realities). If my fieldwork in South Durban taught me anything, it was that this is a false dichotomy; a place can simultaneously be a source of inspiration and in need of assistance. Wentworth is one such place.

While the politicisation of the local community resulting from decades of environmental racism is understandable, the emergence of organised grassroots activism in South Durban is slightly more surprising. Unlike anti-dam activism in India, much of which is an example of 'environmentalism of the poor' (Juan Martínez Alier, 2002; Guha & Martinez-Alier, 1997; Nixon, 2011), the South African environmental movement has a distinct history

of ‘environmentalism of the rich’ (Dauvergne, 2016) which ‘lov[ed] wild animals much more than black babies’ (Prozesky, 2009, p. 300). Apartheid-era environmentalism represented a largely white middle-class phenomenon focused on conservation and preservation of the ‘inherent value of nature’, often at the expense of South Africans of colour and the so-called brown environmental issues such as pollution, sanitation and equitable access to natural resources (Leonard, 2013; Steyn, 2002, 2005).[37] But the movement has moved toward a more holistic approach (Khan, 2000) and South Africa now has a diverse, internationally acclaimed environmental movement that sees socio-political conflicts as integral to environmentalism. SDCEA is one of its most notable components (Barnett & Scott, 2007a; Freund, 2001; Leonard & Pelling, 2010; D. Scott & Barnett, 2009).[38] Desmond D’Sa, SDCEA’s leader, is the 2014 recipient of the Goldman Environmental Prize (also known as the Green Nobel) for the African region[39]—an honour that was extended to Medha Patkar for her anti-dam activism in India in 1992.[40] Spending time with both these figures during my fieldwork, I realised that, despite the different contexts from which they emerged and the different proximate objects of their respective struggles, Medha Patkar and Desmond D’Sa represent movements that have a lot in

[37] The history of racial discrimination indeed shaped South African environmentalism well before 1994. As Beinart and Coates (1995) point out in their comparative study of the rise of environmentalism in the United States and South Africa, ‘in South Africa, opposition to the older resource-based conservation policies did not originate initially from American-derived 1960s environmentalism with its accent on amenity and “rights of nature”. Rather it was expressed in black popular movements opposing government conservationist measures in the African reserve areas’ (p. 99). See Carruthers (1995) chapter, ‘The Other Side of the Fence’: Africans and the Kruger National Park’, pp. 89-102, for an overview of the impact of early government conservation efforts on the black population and the work of the historian Farieda Khan (1994, 2000, 2014) for a wider overview of the impact of the end of apartheid on South Africa’s environmental movement.

[38] My informants often referred to groundWork as SDCEA’s sister organisation. It was founded in 1999 by activists with a view toward influencing the international discourse on development. ‘The mandate of groundWork has been to address three major concerns: oil and air pollution with regard to chemical industries, health-care waste and incineration, and hazardous waste’ (Chari, 2006b, p. 435).

[39] The list of Goldman Prize winners among my interlocutors could not be complete without Bobby Peek (1998 recipient for the African region), a key figure in the history of environmental activism in South Durban and the head of groundWork during my time in Durban. It has been noted that Bobby and Des are very different in their leadership styles and that this is an asset rather than an obstacle for the movement. According to Chari (2005, p. 24), a strength of SDCEA’s alliance with groundWork, ‘from the perspective of Wentworth, is that it can wear many hats—militant and professionalised, grassroots and networked, confrontational and negotiable—and it can work across multiple scales: local, city, provincial, national and international. Bobby Peek and Desmond D’Sa are perceived as very different types of activists; Bobby as more negotiable and Des as an element of the “ultraleft”. They speak of this perception openly, as if it was part of their tactical arsenal’.

[40] See, for example, Scheidel and Work (2018, p. 12).

common. Perhaps the most important similarity is their sustained opposition to the mainstream development paradigm of industrial modernisation that, in their eyes, makes a mockery of the rhetoric of human and environmental rights that allegedly represent the bedrock of the Indian and South African states.

Yet their different histories have led to different conversations at the heart of these movements.[41] Both have been shaped by intergenerational (vertical) and intragenerational (horizontal) agonistic pluralism; the Indian activists' response to the disruption of intergenerational dialogue and cultural identity is what alerted me to the vertical aspect. In South Africa, I saw the horizontal reflected in apartheid's legacy of dialogues across formerly uncrossable lines of race, ethnicity, gender and class, and this crossing of the uncrossable inevitably linked this dialogue to the intergenerational as well. In a country that continues to be marked by stark inequalities, the horizontal agonistic pluralism at the core of present-day South African environmentalism is a counter-cultural force that challenges not only the ideologies of the state (and the transnational ideologies of neoliberal capitalism and [post]industrial modernity in which the state is embedded) but also the binary logic of apartheid that continues to shape South Africa's society and economy.[42] The common enemy of environmentalists in South Durban is not merely the mainstream development paradigm but the demon of apartheid history. This is where history meets the present through the imperial matrix of capital accumulation.

It did not take long for me to realise that this history is still very much alive, in South Durban and across South Africa. During my pilot study in the spring of 2016, I was already shocked at the disparities between the haves and the have-nots, a divide that seemed to correspond with the historical racial polarisation between whites and non-whites but which was

[41] Culture has also played a role, although it is difficult to assess this in depth as my data only allows tracing cultural change back in time to a limited extent, through the memory of my participants.
[42] Counter-cultural, in this context, does not mean anti-state, as I argue later in this section.

also increasingly about class (M. Hunter, 2010; Seekings & Nattrass, 2005) and the phenomenon of state capture (Bond, 2014) by corrupt economic elites associated with the rule of Jacob Zuma (Booysen, 2015). Before engaging in research in South Africa, I had considered this country a success story on a continent troubled by illness, endemic poverty and the economic domination of foreign superpowers (Somerville, 2016), but the realities I encountered here—along with the scholarship of South African scholars (e.g., Bloch, 2009; Bond, 2000, 2014; D. Scott, 2003b, 2003a; Steyn, 2005; Seekings & Nattrass, 2005)—convinced me otherwise.[43] Like many foreigners, I fell in love with the vistas of Cape Town while scouting for my research site.[44] But by the time I boarded a train to Johannesburg, my next destination, I felt there was something soul-crushing about the divide between the wealthy and still predominantly white parts of the city and the 'flats' and townships surrounding these guarded spaces of apparent prosperity. It was possible to live for years in a place like Greenpoint without encountering poverty, crime and the gross injustices shaping the country's society.[45] 'Apartheid never ended', I wrote into my ethnographic diary as I reflected on my time in Cape Town during my long, slow train ride to Johannesburg.[46]

[43] Not all countries on the continent are, of course, plagued by all these issues, and my preconceived notions about 'Africa' were among the assumptions challenged by my fieldwork.

[44] I remember sitting in a local bar with a friend and telling him I liked it there so much that I would even come back for a whole year to write up my thesis in Cape Town rather than back in Cambridge.

[45] Even the waiters in local restaurants were white, in contrast to most other areas I visited in South Africa, where waiting on tables seemed to be considered too 'lowly' an occupation for white workers.

[46] The aliveness of history matters a lot in South Africa. While Nelson Mandela is credited with accomplishing the seemingly impossible and keeping the country together in the wake of the end of apartheid (Mandela, 2013), neither the Truth and Reconciliation Commission (Sitze, 2013) nor attempts at economic reform did much to alter the socio-economic realities of a vast majority of non-white South Africans (Bond, 2000, 2014). (An alternative historical interpretation of the post-apartheid economic policies of successive ANC administrations is outlined in Chapter 4.) And so, while the most explicit of symbols of the old regime—'whites only' signs prominently featured in the Museum of Apartheid, for example—might have disappeared, the underlying logic of racial segregation survived the regime change. What this means in a place like the South Durban Industrial Basin is that, although all of its inhabitants are ostensibly equal citizens of a democratic South Africa, in reality they are as divided as ever. Whites do not dare to enter a neighbourhood like Wentworth for fear of gang violence or air-pollution-induced cancer or simply because there is 'nothing there' for them. The Indians stick to Merebank but try to send their children further up north as a way of ensuring their upward social mobility, just as the coloureds still live in Wentworth and, if they can, send their children to schools outside, while the blacks remain in Umlazi and, if they can afford it, load their children onto taxis that take them to schools in Wentworth or Merebank. Despite new spatial configurations and the seeming mobility of race, segregation remains a major issue. Some of the local residents even went on record with me saying that things are worse for them than before 1993. 'Not white enough, not black enough,' one of the locals in Wentworth told me.

For environmental activists, continued segregation means they are dealing with groups of local residents who see themselves as fundamentally different from their neighbours who have a (slightly) different skin colour. While post-apartheid laws allow a group like SDCEA to organise—which would have been unthinkable before 1993—the task of bringing together the various groups of people in South Durban is arguably not much simpler than it was during the totalitarian regime. It is as if the history of division is projected onto the present despite the smokescreen of a nation that supposedly has moved on. This is where the idea of a horizontal agonistic pluralism comes in. While activists in South Durban certainly engage in the kinds of dialogues with the dead reflected in the thoughts and actions of activists in Pashulok, their most visible strength seems to be in their ability to build interracial coalitions in the face of the apartheid of the present. Air pollution is a particularly potent bonding agent, as all in South Durban are affected by it irrespective of their skin colour, wealth, age or gender. Just like the vertically rising waters of Tehri Dam that submerged sedimented layers of memory, the life-threatening chemicals of South Durban's oil refineries and factories rise up through the smokestacks and spill across the entire industrial basin. Fighting this pollution—given the history of environmental racism, these industries' economic importance to the country, and the vested interests of transnational corporations and the government in keeping the factories going with as little investment in environmental clean-up as possible—is arguably what scholars of the environment call a 'hard problem'. This combination of the vertical-turned-horizontal industrial pollution, the economic and political order that make it extremely hard to challenge, and the apartheid-like racial divisions are a furtive ground for a pluralistic, agonistic breed of activist resistance that cuts across deeply entrenched social divides. Just like the polluted air, SDCEA's presence spreads horizontally like an expanding cloud, covering areas it previously would have been unthinkable to link together in collective political action.

This horizontal expansion is reflected in the history of local activism. During my time with activists in South Durban, I often heard references to Earthlife Africa as the predecessor of present-day environmental organisations like SDCEA and its sister organisation groundWork which operates internationally. Founded in 1988 in Johannesburg, Earthlife Africa was initially a platform for mostly left-leaning white South Africans challenging the environmental injustice of the apartheid regime. It held a national conference about sustainable development in September 1992 at the University of Natal in Pietermaritzburg,[47] which was, according to many of my informants, a pivotal moment in the history of South Durban environmentalism.[48] Chris Albertyn, whom many in South Durban consider a key figure behind the emergence of SDCEA and groundWork, presented a paper titled 'Effluent of Affluence: How I Came to See the Dirt on Adam Smith's Invisible Hand', in which he argued that unfettered free markets were responsible for much environmental destruction (Albertyn, 1993, p. 214),[49] echoing a critique of global capitalism similar to the one advanced by Western environmental movement at the time (Guha, 2000).[50]

I interviewed Chris Albertyn in 2017 in a coffee shop in Kloof, a leafy suburb of Durban. Expecting to see a hippie, I met a soft-spoken, reflective man whose white beard and

[47] The conference participants defined this as 'development which doesn't destroy its own future' (Hallowes, 1993, p. ix). But the point of the conference in some ways was to find a new definition, as national and international figures were brought together in an effort to understand what the concept might mean in the context of a rapidly changing South Africa.

[48] The conference papers and proceedings reflected an unprecedented diversity of guests, views and both overlapping and disparate agendas. Perhaps the title under which these papers were published—Hidden Faces—was a reference not only to the often 'invisible' effects of slow violence but to the underlying humanity shared by all these different figures, the recognition of which, Arendt argues, is a prerequisite to agonistic pluralism and action. In an email to me, after reading a draft of this chapter, Albertyn wrote, 'Most [of the conference participants] were invited activists—majority from nascent South African social justice structures (groups focussed on land, religion, traditional leadership, political parties, women, workers etc.) and also noted activists from southern Africa, Ghana, Nigeria, Kenya and elsewhere. Then key people from Third World Network (e.g. Meena Raman, Malaysia; Vandana Shiva, India), plus some inspirational people from the USA—Dana Alston being the person I believe to truly introduce and sell the term "environmental justice" to this diverse audience that did hold key shared values'.

[49] More specifically, he argued that '[Adam Smith's] vision claims that everyone can achieve and should aspire to a salvation based on industrial consumerism. It is no accident that in 200 years this world-view, aided and abetted by a mechanistic scientific philosophy, has managed to propel us into a period of enormous environmental, economic, and social crisis. For me, as a voluntary environmental activist, it was the issue of industrial pollution that sufficiently stained Adam Smith's invisible hand so that I could recognise its dark and far-reaching shadow. While campaigning against the injustices of Thor Chemicals, the British-owned transnational corporation (TNC),

deep-set eyes reminded me of stereotypical images of ancient druids, with whom he also seemed to share the gift of wisdom. Chris had the aura of a professor, but his occasional pauses between sentences and the subtle movements of muscles in his face betrayed a past of varied experiences well outside the ivory tower, some of which were no doubt painful. Thinking back to the early 1990s, he recalled that the movement initially was '99 per cent white'. He said that its culture was 'still white middle-class academic' and that it was 'very conscious about trying to make space or trying to embrace broader demographics', the result being that 'the issues we took up became more embracing of issues that affected all races'. When I asked him what it was about that point in time that made such a shift possible, he noted that

> *it was just the condition of the time and the context that allowed us to do that. We were able to link it up with worker struggles, worker health-and-safety struggles in industrial areas and . . . [we] talk[ed] to working-class people around things that were really important to them, particularly from a factory perspective and health and safety and realising there was a narrative of a broader set of values and a broader set of aspirations of how we would like to see the world that was shared more widely.*

Chris pointed to a window of opportunity that opened up as a result of political changes in the early 1990s. A shared goal of overcoming the divisions of apartheid set the stage for a new type of pluralism in which it was not just middle-class white academics who came together to agonise over what 'sustainable development' could mean in this part of the world.[51] Wider participation in the conversation meant that the previously singular debt to the unborn—to

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here in South Africa, I learnt increasingly of the myriad of parallel injustices that were occurring the world over. It was truly a local experience that challenged me to try and comprehend our global crisis' (Albertyn, 1993, p. 214).

[50] Yet, elsewhere in his essay, Albertyn's writing betrays a growing realisation of what this critique might mean in the context of 1992 South Africa. 'Francis Bacon's injunctions with regard to our relationship with nature also said much about the position of women and the poor in this reality', he wrote. 'Nature was to be "bound into service", made a "slave" and our purpose was to "torture nature's secrets from her". These injunctions to dominate, divide, control and compete have become the very fabric of the Western way of life' (Albertyn, 1993, p. 217). In this part of the essay, Albertyn continues his attack on an essentially high modernist (J. C. Scott, 2008) view of development, albeit with an emphasis on 'women and the poor'. This perspective could be seen to mirror the environmental movement's growing openness to the agendas of the groups fighting for the rights of the poor, women and other marginalised groups at this time.

[51] See Cock (2006), Koch (1991) and Crompton and Erwin (1991) for analysis of the coalitions formed within the environmental movement after the fall of apartheid.

preserve the natural environment—gave way to multiple debts, including the debt of equality and historical justice and the debt of truth about the past, as reflected in South Africa's Truth and Reconciliation Commission (Boraine, 2000; Sitze, 2013). It also became clear that these debts could only be discussed through inclusive vertical-horizontal agonistic pluralism rather than the selective 'pluralism' of apartheid. Just as environmentalism became multi-coloured—the 'white' alongside the domestic 'brown' and international 'green' agendas—sustainability became multi-layered, the environmental alongside the social and economic. Chris continued: 'What it meant to be green in South Africa was that it was inclusionary, it was recognizing [that] multiple facets of the same problem can be looked at from different perspectives, a worker perspective'. It was about finding shared narratives and a common language rather than 'trying to co-opt one schematic faction to say our issue is more important, you should come and fight our issue'. The goal was to look for shared interests among the various groups coming together and rally around those, he explained. Apart from the intrinsic value of diversity, the shift toward finding intersections of different agendas was a strategic move. The early 1990s were not only a time of hope when social transformation seemed within reach but also a clear opportunity for the environmental movement to have a greater say in the country's politics.

These newly found opportunities manifested in South Durban soon after the election of Nelson Mandela as South Africa's president in 1994. While there is some evidence of protests against the environmental impact of petrochemical industries on local populations before the 1990s—including complaints from the white population living on the Bluff[52] as early as the

[52] The Bluff is a part of South Durban that has been historically inhabited by white South Africans. It is separated by a hill from both oil refineries, and it has several beaches. It is also the area where I stayed during my fieldwork. When I first arrived, the housekeeper at my accommodation told me about an old saying 'life is rough on the Bluff.' Despite its natural beauty, this area certainly was not the most desirable location for whites during apartheid due to its industrial character, and the Bluff became home to the less privileged among the whites. Today, the Bluff continues to be a 'posh' area relative to other neighbourhoods in South Durban but it has become a multiracial area, as many of the white families who used to live here sold their properties and shifted to more desirable parts of the city, such as Berea and Umhlanga.

1960s[53]—the event remembered by many as pivotal was Mandela's visit to the Engen oil refinery in March 1995, when local activists staged a protest at the refinery's gates.[54]

I talked about this important episode with Patrick Mkhize, a veteran of the South African trade union movement and an SDCEA stalwart. Patrick's office was located in downtown Durban on a street I had not driven through before. Local academics told me that the city centre was not safe and advised me to avoid it, so I always took care to drive around the downtown area rather than through it, until the day I met Patrick. The streets were swarming with people on that hot spring day. While the post-apartheid white flight from Durban's central business district was not as significant as in Johannesburg, the downtown certainly did not feel like the 'citadel of [white] privilege' that it was under apartheid (Schensul & Heller, 2011, p. 104). The area was full of black-run businesses and residences and—according to local academics and teachers at Durban South Primary—crime. While this change might seem symbolic of a changing world order, it masked the underlying continuity of economic disparities. Black people might have been able to move to city centre but they still lived in poverty as the wealthy and the privileged (including me) detoured around the downtown area, further reinforcing segregation.

Patrick, a large man with a charismatic laugh and expressive face that had clearly seen much, sat me down in a small conference room in the offices of the workers union, which he

[53] This type of activist mobilisation appears to have operated separately (through different actors, at different times and in different spaces) from the anti-apartheid mobilisations in South Durban linked to Biko, the ANC and MK. Sparks (2006, p. 207) has traced the contours of this history: 'Earlier civic mobilisations around public health and civic amenities by white landowners on the Bluff found newer, more powerful expressions in the 1950s with the establishment of Stanvac. Landowner interests, founded on a conception of the Bluff as a neighbourhood with an attractive "natural" character, conducive to comfortable living, leisure and a high standard of civic amenities, informed the character of mobilisations from the beginning, though health concerns (still vaguely articulated) became increasingly prominent. This civic culture also had traces of a critique of corporate greed and powerful layman discourses which betrayed its roots among white railway and municipal workers on the Bluff'.

[54] In Sparks' (2006, p. 218) account, 'President Mandela's ribbon-cutting visit in late March 1995 to dedicate the new expansion of the refinery, was a watershed in the controversy. He was greeted at the gates by a protest organised by the WDF [Wentworth Development Forum]. Mandela stopped to speak with them, and refinery pollution was thrust onto the national stage in a way that had not occurred since the 1950s. Three days later, a government delegation, led by Mandela, met with leaders of the area's civic organisations and the refinery's management. The Deputy Minister of Environment and Tourism (DEAT), Bantu Holomisa, was tasked by Mandela to convene a "multi-stakeholder" *indaba* [conference of principal men of the Zulu people] in May'.

led. We talked about history, activism, education and politics. When we spoke of Nelson Mandela's visit to South Durban, he became visibly animated. 'So, Mandela, wherever he went, nobody could stop him. But because we managed to stop Mandela and Mandela got out of the limousine and came to us and said what is the problem? And we told him what is the problem', he said proudly. 'And we said we are pleading with you Madiba, get back in your limo and go back, don't enter these premises. He said I want to meet you tomorrow, you see? I want to meet you tomorrow'. Patrick pulled out his cell phone and after a minute or two of looking through his photographs, he located a picture of a meeting between Mandela and the South Durban activists and proudly passed the phone to me across the table. In that meeting, Patrick continued, Mandela 'was very emphatic that management, the business owners must listen to what the community says because there must be cooperation and coexistence between the two or otherwise the one must relocate. And we said the business must relocate, not us, you know'. While Mandela was not in a position to ask the factories to move due to the political economy of the post-apartheid moment and South Africa's dependence on foreign capital (A. Hirsch, 2005), his support of the activist struggle helped to generate resistance and endowed the movement with a powerful, legitimising origin story.[55]

In contrast to present-day activism being seen as a challenge to the government, the early post-apartheid moment saw a merging of the two. Many environmental activists, including Desmond D'Sa, had come from the ranks of the ANC, and South Durban played an important part in bringing the environmental agenda to the forefront at this time of political transformation (Barnett, 2003). It represented a space where the logic of apartheid was successfully challenged—a microcosm of Mandela's ideal of the rainbow nation (Mandela, 2013).

[55] More than two decades on, this story figured prominently in the consciousness of activists across South Durban. Sometimes they would invoke it with a tinge of nostalgia, as if they were missing the times when the government was listening to the activists; at other times it served as a form of legitimising the activist struggle which aimed to fulfil the promise of the constitution (which in the story becomes represented by Mandela).

I had a chance to learn about the early days of South Durban activism from Rico, one of the core staff members at groundWork. Rico was white, but his name and accent betrayed his Greek origins. Bald, wearing rimless glasses, jeans and a t-shirt, my first impression of Rico was that of a minimalist and a family man. We first met at a dinner organised by a mutual friend in Durban before I visited South Durban or met other activists, where Rico was focused on making sure his children did not turn our friend's house upside down. During our conversations over the coming months, which focused largely on the big picture of environmental activism in 2010s South Africa, Rico often reflected on the kind of world his children would grow up into.

He shared with me his extensive knowledge of the historical evolution and unique nature of South Durban activism:

> *The communities around South Durban uniquely cross this racial and ethnic and class barrier and manage to form an alliance in Durban and it's kind of politically endorsed. Nelson Mandela comes to South Durban. Kader Asmal, who I think was the minister of water affairs at the time, Bantu Holomisa at the time was the minister of environmental affairs. All of these politicians kind of endorse community activism around the issues they're working, whether it's wasteland for sites or air pollution or water pollution or whatever . . . And that was like the mid- to late-90s. So that was like the honeymoon period. It's the first dispensation and the strong political mandate by the people, government is strong. It's still kind of in opposition to industry because industry is generally white-owned capitalist.*

While the 'honeymoon period' may not have lasted beyond the 1990s as successive governments failed to deliver on the promises of the Mandela years, the meshing of activism and government left a lasting legacy in South Durban and beyond. Activists not only got a taste of success, but the powerfully horizontal agonistic pluralism underpinning their struggle that brought together diverse groups became part of the genetic makeup of the environmental movement in the following decades.

6.2.1 Air pollution as a social equaliser?

SDCEA is perhaps the most significant and enduring legacy of this period of hope. In an interview, Desmond D'Sa described it as an 'alliance of twenty groups from churches to conservation groups to civics to home hostel dwellers to unemployed people to flat dwellers'. Initially focused on fighting air pollution in South Durban, SDCEA has become involved in other issues over the years, including public health, energy, livelihoods and development.

But air pollution remains the main focus because everyone in South Durban breathes the same polluted air. Air pollution has become the common enemy, much as apartheid had united activists for decades before 1994. Unlike the brutal system of apartheid, however, polluted air is a prime example of slow violence. Toxic substances accumulate in the bodies of local residents over years or even decades before causing symptoms. This leaves the activists in South Durban with a difficult task, as Rico, whose background is in epidemiology, pointed out to me. 'If we look at the global evidence-base for the global determinants of health, [air pollution is] the thing that causes most people to die around the world. Indoor air pollution and outdoor air pollution combined is at least twice as much and maybe as much as three times as much responsible than the second and third highest causes of death globally'. Despite this, the slow violence air pollution causes is difficult to expose. Rico mused: 'So how do you articulate that? How do you say to people there's this thing in your community that is invisible, that you can't see because it's not visible to the naked eye and in many cases, the science that helps understand how it affects you is not very well-known?'

SDCEA has employed a variety of techniques to do this. They have collaborated with scientists and scholars on studies of air pollution's impact on communities in South Durban. The most notable outcome is a 2008 epidemiological study of asthma and respiratory disease among children attending Settlers Primary School (Kistnasamy et al., 2008), which is located

Figure 89: Settlers Primary School, the site of SDCEA's air pollution study

at the fenceline of Engen oil refinery (Fig. 89).[56] The study found that 52 per cent of the children suffered from asthma; figures from other South African studies range between 0.14 per cent and 15 per cent (Kistnasamy et al., 2008, p. 367). During a 'toxic tour' of South Durban (Fig. 90), Bongani, SDCEA's air quality officer, told me this finding 'actually broke the Guinness Book of Records'.[57]

[56] Aside from the Settlers epidemiological study, SDCEA collaborated on a range of scholarly investigations. For example, a 2002 report, 'Comparison of Refineries in Denmark and South Durban in an Environmental and Societal Context' (Danmarks Naturfredningsforening & SDCEA, 2002), highlighted Shell's double standards of acceptable environmental footprint, with its Danish refineries (owned by Shell) being much 'cleaner' than Sapref in South Durban. Studies undertaken as part of the implementation of the Multi-Point Plan also reflected significant input by SDCEA; a study that compared the asthma rates of children in South and North Durban, for example, found a statistically significant relationship between attending a school in the south of the city and suffering from respiratory illnesses including asthma (R. Naidoo, Gqaleni, Batterman, & Robins, 2007).

[57] SDCEA regularly offers 'toxic tours' of the area. These involve driving to several viewpoints around the industrial basin and listening to the SDCEA staff recount the history and current state of the struggle as it relates to the particular place. In my fieldnotes from the tour I went on in the beginning of my fieldwork, I wrote, among other observations, 'Stopping in front of the chemical storage facility on the Bluff; Bongani asked me to park the car across the road from the entrance gate, as we got out he says this industrial complex still under "apartheid" laws for objects of "national importance" that almost turns it into its own "sovereign state", Bongani visibly afraid

Figure 90: Bongani giving me a 'toxic tour' of South Durban

Bongani, a young, energetic, smiling slim man seemed, like Des, to have an elusive air of idealism about him. Perhaps it was his unrelenting optimism in the face of environmental destruction, the way he maintained eye contact with everyone he spoke to, or his ability to be simultaneously gentle (in his manners) and firm (in his opinions) that made him appear to me to be the 'future of SDCEA'—an opinion I expressed to him one day as we sat in the cramped office he shared with two others. Desmond (who, I thought, would eventually retire) was out, and I was curious to see how Bongani would react to my remark in his absence. 'No, bru, I can't do this forever. I have a little daughter and education is not cheap in this country', he said. This struck me as disappointing but hardly surprising; Bongani had already spent more than five years at SDCEA, and it seemed too good to be true that such a talented young man

that he might get spotted and get in trouble; he whispers to me that he is known to the management of the facility and it's better they don't see him'.

would stay in for the long haul, given the activists' low salaries. As we kept talking, I learned that Bongani saw his activism as an important way of providing for his daughter but that eventually he would need sufficient earnings to be able to send her to a decent school. His was a 'calculus of sustainabilities', I thought—he was walking a tightrope between sustaining the individual and sustaining the planet, a walk that many environmental activists are only too familiar with.

It was remarkable that SDCEA, with its small staff and limited resources, had managed to create awareness about pollution on a local, regional, national and international scale. While alliances with researchers were helpful in drawing attention to the lethal effects of air pollution, as with the asthma study, much more needed to be done to address the issue. Desmond and Bongani explained to me that SDCEA pursued a mixed strategy of collaboration and conflict:[58] it worked with government authorities in some instances (e.g., by participating in environmental impact assessments of proposed developments in the industrial basin)[59] while simultaneously confronting the government through protests, marches, media exposure (Leonard, 2014b) and other means.[60] This approach was evident as soon as I walked into the SDCEA office which at the time occupied a flat on the ground floor of John Dunn House.[61] On the first of my many visits, I saw a large megaphone on the floor of the entrance hall, leaning

[58] While 'conflict' mostly remained confined to marches, demonstrations or words uttered in conference rooms behind closed doors, sometimes it got much more serious. During one of our conversations, Des recalled an incident in which 'they petrol-bombed the flat after midnight . . . So I still bear the scars of it, and fighting the fire off. Lucky enough I was trained, so I fought the fire off, put the electricity off. My kitchen was completely burned, the lounge was burned somewhere at the bottom—I didn't really care. After I went to hospital, I came back the same morning and walked back and showed those that I wasn't scared of them. And show them that now I'm still going to fight even harder'.

[59] Historically, systemic constraints have limited such participation (Leonard, 2014a), something SDCEA has challenged, with some success.

[60] My observations were consistent with Chari's (2007, p. 264), based on his fieldwork over a decade before mine, suggesting a consistent pattern of a mixture of engagement and confrontation: 'Given that SDCEA does not have a mass base but that it can bring together a strong crowd around issues like incineration and relocation, it has found it necessary to deepen the links between campaigning and episodic militancy. One of the challenges the alliance faces is to forge a tighter link between labour and fenceline communities, to bring together questions of environmental pollution and jobless growth in the expansion of the South Durban industrial basin'.

[61] John Dunn House was originally founded as an assisted living residence named after a local reverend by the Durban Senior Citizens Association.

against a large cabinet. On top of the cabinet was a row of neatly arranged books and brochures published by SDCEA over the years, and next to it was a bucket with a hole in the lid which was used by SDCEA's notorious 'bucket brigade'.[62] Before Desmond walked in from his 'office' (a small room he shared with two colleagues and several stuffed cabinets) and gave me a hug, I made a mental note to remember this peculiar arrangement of objects in the hall, which corresponded to SDCEA's multipronged strategy of organising (the megaphone), monitoring (the bucket) and advocacy rooted in scientific research and publishing (the cabinet and row of books).

Figure 91: An air monitoring station inside a school compound in South Durban

[62] The 'bucket brigade' is SDCEA's way of involving the community while collecting scientific evidence of pollution levels in the industrial basin. It involves a bucket, a sealed plastic bag and a bicycle pump. The pump, attached to a hole in the bucket's lid, fills the plastic bag with air, upon which the bag is sealed and sent to an independent laboratory for examination. When Bongani demonstrated this to me, he noted that SDCEA used to have to send samples all the way to California, because there were no laboratories within South Africa that were not owned or controlled by industry or industry-associated groups. At the time of my fieldwork, the samples were being sent to a domestic laboratory, which was deemed reliable and independent by SDCEA.

Perhaps the most significant achievement of this strategy was the eThekwini municipality's Multi-Point Plan of 2000, which led to the creation of a network of state-of-the-art air-monitoring stations around South Durban (Aylett, 2010b), capable not only of measuring the pollutants in the air but, by triangulation of data from multiple stations, of identifying the sources of the pollution. According to Siva Chetty, former manager of the programme who was sympathetic to SDCEA's agenda and had become actively involved in its activities, 'You can see it in the graphs in that period that [air pollution] dropped like by a hundred per cent and we reached compliance' with legal norms of acceptable levels of pollution. The system also enabled the municipality to correlate exposure to polluted air with health effects. But even more importantly, as Siva told me, he 'was able to use the monitoring network to link who's causing that. And when I was able to show that, industries started coming in and dealing with that situation because causation was clear you know, they couldn't use uncertainty to evade the situation, which they've used for decades'. By approximately 2010, however, the municipal authorities 'allowed the network to fail', as one activist put it. Data on air pollution are no longer available, leaving SDCEA no option but to capture air samples for analysis at an independent lab rather than relying on the monitoring network—a major setback. SDCEA also is dealing with the local communities' lowering participation in its protests against air pollution. As a South African academic who had studied the work of SDCEA told me prior to my fieldwork, things had quieted down in South Durban.

SDCEA's grassroots activity, rather than its work with government, was most relevant to my research. The waning participation seemed a curious phenomenon; after all, it took a lot of grassroots pressure for the Multi-Point Plan to become reality, which suggests that protests would intensify after the plan failed. In pondering this during the early days of my fieldwork, I wondered to what extent SDCEA's efforts were an outgrowth of grassroots activity rather than it being the source of this activity. Which way did the causality go? After a few weeks in

the field, it became apparent that such a binary distinction was an oversimplification. The activists were raising awareness about air pollution and other environmental issues while simultaneously letting the community shape their activist efforts—these are not mutually exclusive scenarios.[63]

Understanding how air pollution is tied up with historical patterns of exclusion, inequality and the manufactured invisibility of entire communities is key to understanding how fighting the common enemy of air pollution contributed to the emergence of horizontal agonistic pluralism in South Durban. The following narrative that Bongani shared with me sheds light on this connection:

> *A resident that is residing in these communities, be it Merebank, Wentworth, Clairwood or Isipingo or the Bluff, most of these communities, they are not employed in these refineries . . . Engen was built in 1953. This area is zoned as a residential area, it is not an industrial area. And when there are people who were products of forced removal from Cato Manor and other areas who were brought close by to add on to the communities that were already residing here at the time and it was the very same people they were brought here to create cheap labour during the apartheid time . . . A person that grew up in this community, [who has] been exposed to such pollution, that person there are big chances [of] suffering from cancer, leukaemia or asthma . . . So that does not put you in the position to be employed permanently . . . The very same people that made you sick, they cannot employ you permanently. Now the only way that these people are getting employment is when there are shut downs. One month shut downs, two weeks shut downs or at max, two months shut downs.*

Other activists added to this narrative, drawing links between apartheid-era injustices and the present levels of HIV, alcoholism, drug addiction, domestic violence and gender discrimination prevalent in South Durban. Where does one begin to disentangle this layered web of injustice, this entanglement of global capitalism and apartheid history?

[63] If my initial goal was to, in the language of the economist, examine the impact of my independent variable (air pollution) on the dependent variable (activism), my fieldwork forced me to contend with the many confounding variables that influence both.

Desmond went as far as to claim in his interview in *Beauty and the Beasts,* a documentary about industrial pollution in the area, that the local communities are now worse off than during apartheid. The film takes its name from the juxtaposition of the area's natural beauty and the destructiveness of industry, as seen from a viewpoint above South Durban (Fig. 92).[64] When I asked Desmond whether he stood by this statement, he replied:

> *In some areas during the apartheid era, for example Clairwood, there was no trucking depots, there was no illegal chemical companies. There were jobs—sewing machine jobs, factory jobs. A lot of people living there but their places were all nice and done up and clean and that recreational areas and all that were there. Today, the democracy hasn't come to people despite the fact that we all fought for this democracy . . . So whilst during the apartheid era poor people had a say in the city, we could go and live on the beach and fish anywhere and everywhere and there were shelters for poor people, today [there are] no shelters in this city.*

Seen through Desmond's eyes, air pollution is symptomatic of a larger phenomenon—that of a manufactured invisibility of the people of South Durban by the South African state, both pre- and post-1994. While air pollution eating into the lungs, thyroid glands and plasma of the local people might be a form of slow violence, the conditions that allowed it to go on for decades are not simply due to neglect or ignorance:[65] they are the direct result of non-pluralistic politics inherited from South Africa's imperialist, eugenicist and totalitarian past. And, while air pollution provided the spark for activist efforts, it also fuelled people's discontent about the

[64] The film was made in 2006 by Greg Streak, a South African visual artist. As seen in Fig. 92, this viewpoint offers a stark vista juxtaposing the ocean, beach and hill on the one side (which, as Bongani shared with me, was the 'beauty' referred to in the title of the documentary) and the smokestacks rising on the other side of the hill (representing the 'beasts').

[65] Such slow violence would, however, often turn into fast tragedies, such as in the case of the child who died of cancer that Desmond spoke about in the opening quote of this chapter. During my conversations with Des, it became clear to me that he had witnessed many such cases over the years and that this was one source of his determination to remain steady in the activist struggle. Reflecting on this while in the field, I thought that what this perhaps really means is that 'slow violence' is not so much an ontological fact as it is the outcome of perceiving the world from an ever-accelerating temporal frame of reference. In other words, 'slow' is relative, and the pace of life in (post)industrial societies arguably alters our perception of time, lowering the visibility of fundamental environmental transformations that will, sooner or later, make themselves known through 'fast tragedy' on a mass scale.

Figure 92: The 'beauty and the beasts' of South Durban

abyss between the state's promise of human rights-driven policy in the post-1994 era and the reality of South Durban.

This discontent does not always turn into support for the environmental agenda. In fact, SDCEA often has found it challenging to convince local communities to participate in its protests. In Desmond's words, 'people think that somebody is going to come from somewhere and save them and help them out of their misery'. He looked around the room as he told me this, visibly upset, then continued: 'They don't see this need that you must take collective responsibility and stand up. You actually got to beg people, you actually got to pay people to fight for their rights'. But according to Desmond, it was not always like this: 'I mean, those days when I was marching, we used to go on our own buses and take the bus and go there. Nobody paid for a bus for me to march, I marched. Today if you don't hire taxi or hire a bus, people don't march'. While the declining motivation to attend marches might be symptomatic of an increasing sense of hopelessness, Desmond's comment also suggests that the local

community may not be as invested in fighting against pollution as it once was. Indeed, Desmond admits that not everyone in the community agrees with SDCEA's agenda. 'Out there people disagree with us on a number of issues, they just think that we should approve of things, let it go through. We are hard-nosed about development and we don't compromise, and if development is going to impact on people for generations after that, I don't think we are in a game to compromise'. Such a 'hard-nosed' approach, unsurprisingly, pits SDCEA against many diehard proponents of economic growth. Desmond continued: 'So that's been the biggest thing where people have accused us of stopping jobs and getting rid of their jobs, but those are not sustainable jobs you know, casual jobs so we tell them too'.

The accusation that environmentalists are anti-development is not unique to South Durban (Jacques, 2009; Rowell, 1996). In contexts of high unemployment and endemic poverty, people are often likely to be more concerned with economic growth and jobs than the environment. Yet, according to Bongani, SDCEA managed to attract as many as 30,000 people to its marches, which indicates some success in raising awareness about environmental justice and in conveying to local residents that such issues are not antithetical to development and growth. Patrick Mkhize shared with me some of the strategies SDCEA has used: 'People will look at what is very close to them and other things [and] see them or regard them as very far away, whereas the actual truth is that these are the long-term dangers that they need to eliminate. Environmental degradation is the same and equal problem if not worse as the drug trafficking in our community'. And yet, SDCEA feels the need to at least mention the issue of drugs and drug-related violence in each public event it organises. According to Patrick, 'if in an environmental awareness meeting, you don't talk about the drugs, those who have attended will walk out of that feeling that they had actually wasted their time. You talk about environmental issues and then you talk about the drugs, that will make their day okay'. In the community meetings organised by SDCEA that I attended in South Durban, I saw this strategy

of weaving narratives of slow violence with condemnation of fast violence (such as drug trafficking and gang shoot-outs) in action. SDCEA brings people together by making air pollution visible through familiar narratives of oppression, convincing communities that environmental justice is one of the many manifestations of the state's neglect of South Durban and it must be fought along with other forms of injustice.

It is tempting to attribute the emergence of this all-embracing agonistic pluralism to the impact of air pollution, which presents a common enemy to the different groups of people in South Durban, but other ingredients were also needed. If the window of opportunity for activists of the immediate post-1994 era provided the oxygen and air pollution affecting diverse groups of people was the spark, the fuel for the fire of activism in South Durban has come from decades of oppression and the invisibility of the communities in the area that underlie both slow and fast violence against them. Having explored the sources of the agonistic pluralism underpinning this activism, I now turn to the question of its impact on the younger generation.

6.2.2 Where are the young activists?

In multi-sited ethnography, the order in which research is conducted at the sites matters. Having completed the bulk of my fieldwork in India before coming to South Africa, the question of intergenerational knowledge transfer—a key concern of the Indian activists engaging in vertical agonistic pluralism—was at the forefront of my mind when I started my research in Durban. I kept looking for patterns of intergenerational and intragenerational dialogue that could illuminate the ways the youth in South Durban were being shaped by activists' efforts. I soon realised that most of the activists were, as in India, of the older generation, the young activists being notable mostly by their absence. People like Desmond and Patrick, veterans of the anti-apartheid struggle, seemed indispensable to the environmental movement. The older activists soon started talking to me about their concern that young people were simply not

interested in activism. In this section, I examine various narratives of generational disconnect that activists shared with me in an effort to understand the obstacles the environmental movement faces in its efforts to reach young people.

One explanation for why activism might not appeal to young people in South Durban is linked to their socio-economic predicament in present-day South Africa. Cleo, an SDCEA-affiliated activist who is a teacher at a local secondary school, illuminated this link for me during our interview. I drove to Cleo's house, which sits behind a warehouse which is behind a factory, and I was surprised that any residential properties could be located in this heavily industrialised area. Welcoming me, Cleo asked if I had become used to the smell of chemicals in the air; I had not. Cleo, a passionate woman in her fifties, was one of the most vocal people I met in South Durban, and as a teacher she was uniquely positioned to speak to the interface of education, activism and the environment. 'The socio-economic circumstances for our children very often mitigate against them seeing the environment as a priority. It's just not the first thing on the agenda simply because many of them come from child-headed homes or single-parent homes or worse with grannies who are pensioners who are supporting [a] multitude of grandchildren', she told me. These realities created a profound disconnect between the everyday lives of children and the efforts of an activist/educator like Cleo. She continued, 'You can't create two situations, one where they come from a home that's really deprived and lacking everything almost third world, and then come to school where everything is about the law, application to the law and their rights'. The effects of poverty and associated fast violence, in other words, make it difficult for activists to convince people to focus on combating slow violence. This might seem a convincing answer as to why there are not more young environmental activists; the previous section has shown, however, that SDCEA and other activist groups in South Durban have been rallying the local community around a multi-layered critique of inequality, of which slow violence is just one component.

Bongani's narrative revolved around cultural notions of success and associated materialism: 'As a developing country in Africa, most of our kids or most of our youth have been sold the idea of looking at media, TV, looking at the developed countries, looking at actors, musicians, business people flashing those nice cars, nice life-style and so forth'. Cleo went even further: 'A lot of our young people are seduced by wealth. They're going to leave school, go to university, lead a good life, work for one of these bigshot companies, own a beautiful car, a beautiful apartment . . . and basically escape the constraints of their real life. So, activism doesn't pay, not financially'. This narrative is certainly part of the answer. Several students I worked with during my fieldwork admitted to me that activism was not attractive to them in part because it was not a lucrative occupation. Yet, if this narrative applied to all young people, there would be no young activists from poor backgrounds anywhere in the world, which is clearly not the case. There were more pieces to the puzzle in South Durban.

Activists also suggested that their efforts lacked appeal for the young people in the community due to apathy. Cleo noted that children 'have grown up around maladministration of environmental justice for so long that many of them have accepted it'. She estimated that, on days when one of the refineries flares up, 10 children out of 900 at the school might complain 'because they're asthmatic and they feel it in their chest rather than smelling in their nose. But many others just wouldn't complain, so [there's] a lot of apathy'. Cleo's view is that 'apathy' suggests a perceived lack of agency among the young people.

Chris Albertyn also used the word 'apathy' when talking about the young generation's lack of activism. 'We are living in a very different context', he told me. 'I think people who are growing up now just don't have the context to question some of the things we might question naturally in the 80s and 90s and said why is it like that?' His understanding is that apathy is not simply about not believing in one's agency but about the lack of an identifiable 'enemy' one can fight against, such as the apartheid system.

While apathy is clearly one reason for young people's lack of activism, there are others. The depoliticising of formal education in South Durban, as discussed in Chapter 5, and a postcolonial, post-totalitarian South African state fraught with paradoxes and hypocrisies, as examined in Chapter 4, are important parts of the picture. And then there is greenwashing, as Cleo shared with me:

> *In fact, there's a long-standing joke at school 'don't tell [Cleo]' because I've always said I won't touch tainted money, it's blood money. Mondi has built a science laboratory at our school and they asked me to organise the opening ceremony. I refused because I wouldn't touch it. Sapref has built the life sciences laboratory at school, I won't get involved in it. I do a lot of fundraising at school but I will go to small guys and say 'Oh, you have an overrun of tiles that you can't sell anymore, two meters or three meters'. And we get those tiles and re-tile. We've done about fifteen toilets at school but I would never go to Sapref because I honestly believe they're buying silence . . . A child can learn without a lab but a child can't learn with a lung that's gasping for breath.*

The 'blood money' Cleo refers to is the income schools in South Durban derive from an education trust set up by local industries. These payments do not come with any formal expectation that schools will not participate in activist efforts, but many of my informants—in SDCEA, the schools and the wider community—agreed that the implicit understanding is that schools receiving money will keep quiet. Cleo pointed out that, even if this was not the case, the projects the trust is funding often advance the interests of industry. She told me about a math, science and technology school run by Sapref, one of the two large oil refineries in South Durban. Cleo pointed out that the choice of subjects is not accidental; Sapref offers scholarships and bursaries to young people to encourage them to take up careers in the petrochemical industry. 'All they're doing is they're keeping their workforce at a steady place, that's all. They don't want to start looking around for people. They'll have a ready corps of learners from which to draw', she told me. 'There's always something behind it and we've got to learn to look'. Cleo's scepticism about the industry's altruistic motives resonated with a

number of my informants. However, other teachers and school administrators I encountered in the field believed it was possible to accept money from industries to benefit the learners without affecting the school's priorities and their ability to become involved in campaigns organised by activist groups in South Durban. As argued in Chapter 5, however, even in the absence of greenwashing, formal education here is underpinned by development ideologies that are more closely aligned with the industries in South Durban than with activist groups. Greenwashing, then, appears to be an important but not necessarily decisive force in the depoliticisation of environmental issues in the schools. It does contribute—along with apathy, cultural notions of success and materialism, poverty and fast violence—to the struggle activists face in bringing youth into their movement.

This is a long list of answers to the question this section began with, but is the question itself valid? Because many people I interviewed felt the lack of young activists, my conversations with informants became coloured by my assumption that this was the case. I became more direct in asking for the reasons behind an intergenerational disconnect, rather than my first establishing whether my informants thought there was a disconnect. On my last day in Durban, Chris Albertyn called out my bias. He pointed out that a lot of my questions boiled down to, 'Where are all the activists? Why aren't there more activists?' According to Chris, producing more activists was not necessarily the solution:

> *Maybe it would be a good thing if there wasn't a need for activists. Maybe if everybody was sufficiently conscientised to say 'that's wrong, we shouldn't be doing that' . . . This idea of an activist coming to stand up there and ring a bell and point to somebody to say they're bad, we have to change this, is a particular activism which our history has had in South Africa because there were really bad things happening so it's a flavour of activism to say we have to have an us and them, there has to be an enemy . . . If everybody in the street thought the same that, no, what happened here is wrong and we are all going to go talk to our local counsellor or person responsible for . . . that's still activism and there may be one or two leaders that emerge out of there and take a*

leadership role but it's within the context that they are in. You can't create an activist a-contextually.

This comment raised important questions for me. During my time in the field, my enthusiasm about the activists' work grew by the day, just as my disillusionment with the formal education system kept rising. But is the solution to the crisis of the high Anthropocene to use education systems to turn young people into activists?

If educating for Anthropocene means educating for action in an Arendtian sense, then vertical-horizontal agonistic pluralism provides an important alternative to the depoliticising formal education in both Wentworth and Pashulok. But agonistic pluralism and activism are two different concepts: to be an activist, after all, is often seen as a form of leadership. The very notion of activism is premised on the idea that a portion of humanity sees itself as morally superior as it tries to change the status quo. There is a degree of elitism involved in the way we think about activism. The kind of society Chris talked about is indeed more likely to be shaped by action than a society polarised between activists and non-activists. In such a society, agonistic pluralism is truly pluralistic and embraces not only those critical of the status quo but also those who support the existing state of affairs. This does not mean that activism does not have the potential to transform education, but it does suggest that the goal of any such transformation should not simply be to start generating more activists but, as Chris put it, to strive for a society 'in which there is no need for activists'.

6.3 Polyvocal activism, counter-memories and generative spaces of temporality

While the ethnographic accounts of the two activist spaces presented in this chapter provide a glimpse into the cultural and political landscapes shaping these movements, they do not directly illuminate the transmission of activist politics to the youth. This reflects the somewhat bifurcated structure of my fieldwork, which revolved around schooling and activism—two distinct phenomena that occur within the same communities but are framed by different spatial

and temporal boundaries and engage different sets of actors. Since I primarily interacted with young people in the context of formal schooling at both sites, the topic of activism rarely came up. Yet, as the student films discussed in the previous chapter attest, these young people were not only aware of the activist lexicon associated with political socialisation critical of the state, they also put this lexicon into action by creating films that spoke to a reimagined future for their communities. This parallel between activist ideas and young people's political imaginaries is hardly a coincidence and it suggests that, while few of the children outwardly aim to become full-time activists, many of them have been exposed to and in some cases have internalised the understanding of politics that makes people become activists in Pashulok and Wentworth. While there may be few young full-time activists about, what seems to be happening in these communities is the emergence of a kind of part-time activist who does not necessarily join a movement or act on activist impulses but whose political imaginary nevertheless has been shaped by the political pedagogy of activism. This imaginary is a latent resource that can help one break out of the institutional liminality of spaces such as Durban South Primary and spark action in an enabling, pluralistic context, such as filmmaking with fellow students. Activists' understanding of politics in both places converges around a number of features that seem to appeal to young people. I briefly highlight three of these characteristics in this section before discussing their practical implications for education in Chapter 7, the final chapter.

The first feature is the polyvocal nature of these activist movements, which runs contrary to popular imagination of activism. We often think of activists as associated with singular agendas, such as anti-nuclear power, anti-oil drilling or anti-dam movements. Such labels, often espoused by activist groups themselves, portray these movements as narrowly focused on a single issue. They also obscure what such movements might be *for*. A degree of polarisation might be inevitable in the context of political contestation which leads to a very

narrowly defined activist agenda, but such an approach to issues of environment and sustainability fails to grasp individuals' interrelated concerns and imagined futures for the environment. The activists in Pashulok and Wentworth embrace such diversity which fuels coalitional, polyvocal movements that incorporate a range of socio-cultural and economic agendas rooted in the historical exclusion of the populations these movements represent. This polyvocality and openness to diversity appeal to young people, who often identify with some of the voices reflected in the movements.

A second characteristic of an activist imaginary—one grounded in a form of politics that shapes young people's imaginaries of action—is the focus on counter-memories of the state. Running contrary to official, state-sanctioned narratives of 'progress' reflected in textbooks, curricula and, as the previous chapter has shown, in some teachers' personal views, counter-memories reflect localised histories more palatable to the children in these communities. The trauma of displacement, for example, is visible to all in Pashulok, whereas one must travel to a place like Delhi to experience the benefits of the dam—like the electricity supplied to the capital. The sharing of counter-memories also contributes to social cohesion and intergenerational dialogue, something the young people in both sites expressed a hunger for during our interactions.

The third and perhaps most important feature is the activist effort to turn temporal distance into a generative space. The temporal arc afforded by intergenerational dialogue is at the root of activists' imaginaries of the future, and this arc can only be complete if young people engage in the dialogue. Ricœur recognised disengagement as one of the principal challenges of the contemporary era:

> *This indispensable interplay between past and future is becoming increasingly threatened in our time. As our horizon of expectation becomes ever more distant, our inherited space of experience becomes more restricted. And this growing discrepancy between expectation and heritage lies at the root of our crisis of modernity. 'The entire*

> *present is in crisis', writes Ricœur, 'when expectancy takes refuge in utopia and tradition congeals into a dead residue'. Our contemporary task is to confront this crisis and prevent the tension between expectation and tradition from further degenerating into schism. (Kearney, 2004, p. 67)*

By keeping the memory of slow violence alive, activists prevent the deterioration of expectancy of the future into the utopic myth of endless economic growth. At the same time, they try to ensure that tradition is re-imagined and re-interpreted for the needs of the present, rather than becoming irrelevant. By shining a light on the tension between the old and the new, activists are not creating a conflict, as many would accuse them of doing, but are trying to remind their communities of the fundamental contradiction at the root of their neoliberal, postcolonial model of development—the push for a future uprooted from its past.

The activist generative space of temporality does not merely critique; it also advises. Thinking about the temporality of development leads activists at both of my research sites to emphasise intergenerational justice—the idea that we owe it to future generations not to destroy the environment. This is due in part to the fact that the battles they engage in often span decades, thus their efforts are inherently future-oriented. In the words of Thando, an SDCEA activist, 'It doesn't happen overnight, you know, the things that we fight for. So as much as you might think you are fighting for here and now . . . you are actually fighting for the future as well because some of them take long, some of them take time to actually get to a point where they are where you want it to be'. When prompted to discuss the extent to which the idea of intergenerational justice holds currency outside the activist circles, Chris explained, 'If you quite simply go to a very very poor area where it's not the next generation, it's the next meal. Standing up there like a missionary and trying to tell people they should be concerned about generations to follow just doesn't make sense. Not to say that it's not important but that's not what is going to turn people on in this context'. This view mirrors many similar discussions I had with other activists in India and South Africa. They do not believe they have a monopoly

on the idea of intergenerational justice, nor do they see themselves as preachers trying to convert others to their ideas. Rather, they sense concern for the intergenerational as integral to being human, even if other concerns that seem more pressing in the present moment might take priority. The debt to the unborn, in other words, is not something that needs to be taught or externally imposed.[66]

Aside from our debt to past generations for preserving the environment on our behalf or our debt to the future generations to do the same, some activists also see intergenerational justice as a question of human identity. In Rico's words,

> *future generations are an extension of ourselves. It's how we live forever, if we don't care about them, then we don't care about this place that we live in. And how can we not care about them? If we say we don't care about them then it means we don't care about ourselves because it's the only way that we continue to live on. It's through them even if they are unborn, it's the way we live forever.*

This counter-narrative is one of hope rather than a simple critique of dominant paradigms, ideologies and policies. The activists' proposed alternative is to replace the individualism of our consumer society with a recognition of our shared humanity and the intrinsic worth of that humanity—and by extension the value of the natural environment.

These ideas of intragenerational and intergenerational justice offer an alternative to the state's definition of justice. Activists propose to subordinate the agenda of development and economic growth to what they perceive as the higher moral impulse of caring about our

[66] This is consistent with the literature about cultural concepts such as *ubuntu* ('humanity'). Le Grange (2012) has, for example, argued that *ubuntu* is intrinsically linked to the *ukama* ethic of the Shona people in Zimbabwe—which is concerned with the well-being of future generations (Murove, 2007). Therefore, '[t]o become more fully human does not mean caring only for the self and other human beings but also for the entire biophysical world' (Grange, 2012, p. 329). In a similar vein, Behrens (2012, p. 180) has argued that a traditional 'African' cultural notion exists, according to which 'land is not something that can be individually owned. It belongs to the community, which comprises *past, present and future generations*. Since the ancestors are the guardians of the community, they are also the guardians of the land. The land, broadly understood to mean the environment, is consequently not something we can treat in any way we choose. This entails a direct obligation to future persons, to preserve the environment, since the land is a resource that must be shared with others, including posterity. . . the living need to demonstrate gratitude to their ancestors by following their example and ensuring that their descendants also inherit an environment capable of providing for their basic needs' (emphasis added). Some of this literature could be, however, seen as essentialising culture and generalising arguments across diverse groups of people, which is why I do not rely on it in advancing my arguments in this thesis.

species—and by extension the earth—that they see as intrinsically embedded in the human condition. They hope that, by mobilising this instinct, the states' narratives of justice (hollow due to bureaucratic polarisation and corruption), rights (upheld in rhetoric but not enacted in practice) and development (developing for the few at the expense of the many—alive and unborn alike) can be challenged.

The counter-memories and counter-narratives constituting the generative spaces of temporality and fuelling the polyvocality of activism in Pashulok and Wentworth help bridge the schism between the 'utopia of expectancy' and the 'dead residue of tradition' that Ricœur sees as responsible for the crisis of modernity. As Kearney points out,

> *this task—which Ricœur does not hesitate to describe as an 'ethical duty'—is twofold. On the one hand, we must bring the expectancies for the future closer to the present by a strategic praxis sensitive to the concrete steps that need to be taken toward realizing what is 'desirable and reasonable'. On the other, we must try to halt the shrinking of our experiential space by liberating the still untapped potentialities of inherited meaning. (Kearney, 2004, p. 67)*

Activism in these two spaces advocates for and engages in a praxis that is rooted in an 'excess of inherited meaning'—the re-interpretation of memory to address the contemporary challenges of slow violence—which thus helps to liberate the 'still untapped potentialities' of intergenerational knowledge transfer. In this way, activists are also able to contribute to communities' repayment of their debt to the dead, whose knowledge becomes alive in unexpected ways in the effort to tackle the utopianism of the mainstream development paradigm that shapes state policies. The political pedagogy of this, one might say Arendtian activism lies not only in bridging the past with the future it builds over a divisive terrain of development but also in the pluralistic politics it enables across vertical (generations) and horizontal (segregation) divides. In the next, final, chapter, I examine the ways such a political pedagogy might intervene into formal education systems and consider the implications of such an intervention to the larger debates about visions of change in the Anthropocene.

Chapter 7.
Toward a Different Anthropocene Politics

Another world is not only possible, she is on her way.
On a quiet day, I can hear her breathing.

Arundhati Roy (2003, p. 75)

In this thesis, I advocate for operationalising a phenomenology of ESE through ethnography, a project that has radical consequences for both practice and research.[1] It means rethinking the interface between society and education and shifting away from social, cultural and political reproduction—and the associated continuation of slow violence and environmental degradation—that education systems around the world often facilitate in an increasingly neoliberal, globalised world. Putting historical responsibility at the core of ESE has the potential to give education the edge it needs to transform the relationship between society and the environment. Indeed, ESE's 'debt to the unborn' is to shape changes in global and local political and cultural systems that would help advance the radical agenda of environmental sustainability.

What can we learn from activists and educators in Pashulok and Wentworth that might illustrate what 'education for the Anthropocene' looks like? Both sets of actors offer clues to

[1] The relevance and urgency of this argument is underscored by the unfavourable climate for ethnography both within and outside academia. After a recent conference at which I presented an empirical paper that discussed some of my findings, a recognised scholar in the field of international and comparative education approached me to ask a few questions about my work. During the conversation, it became clear that he assumed my paper was based on research I undertook during my PhD. Feeling self-conscious about the quality of my work, I asked him how he discerned this. 'It is obvious', he told me bluntly. 'No one but PhD students would have the time to do this type of ethnography these days'. His sobering comment is fully consistent with my experience of both academia and educational development practice: though there are now perhaps more development experts trained in anthropology than ever before, long-term, sustained and immersive research is increasingly rare. The neoliberal pressures of 'efficiency', tight timelines, the bureaucratisation of academia and an overemphasis on quantitative approaches and big data are just some of the factors that stack the deck against doing the kind of research for which I argue in this thesis. It is precisely for this reason that we need to talk more about ethnography in the context of ESE.

the answer. The logic of activists—agonistic pluralism with its horizontal and vertical manifestations—and of teachers—many of whom are driven by a desire to see their students rise above the socio-economic stratum into which they were born—are both key pieces of the puzzle. The rigid, discipline-oriented culture and coloniality-fuelled state ideologies of schooling in India and South Africa, with its attendant dehumanising bureaucratisation of teachers and students alike, can obscure the motivations of individual teachers which often are not dissimilar from the motivations of activists.

Let us consider a simple example from my fieldwork. In one of my conversations with Rico, an activist working with groundWork in Durban, I tried to get a more concrete sense of how activists imagine schooling to align with their agendas. One of Rico's ideas was that teachers could be role models—if they chose not to drive to school, for example, students would see that it is possible to live without a car. Only a few days later I spoke to Mrs. Pillay, vice-principal of Durban South Primary, who told me that teachers are indeed role models for students. She said pupils may be inspired by the fact that she drives a Mercedes to school despite coming from a poor background. Rico's and Mrs. Pillay's views represent two very different imaginaries—the politics of restraint (along the lines of Gandhi's philosophy) and the narrative of an individual who 'made it' in life against all the odds (just as India and South Africa aspire to 'catch up' on their path toward 'development' despite their histories of exploitation, or as families struggle to afford a two-storey house; Fig. 93). Rico's notion of restraint focuses on his recognition of slow violence, while Mrs. Pillay's success story resonates with many who experience the fast violence of living in poverty. While it is not difficult to see why teachers often did not see activism as an educational resource, and vice versa, the two narratives are arguably not at odds with one another; rather, they are complementary, just as slow and fast violence are two sides of the same coin (at least in Wentworth)—both reflect the inhumanity of the 'human' age.

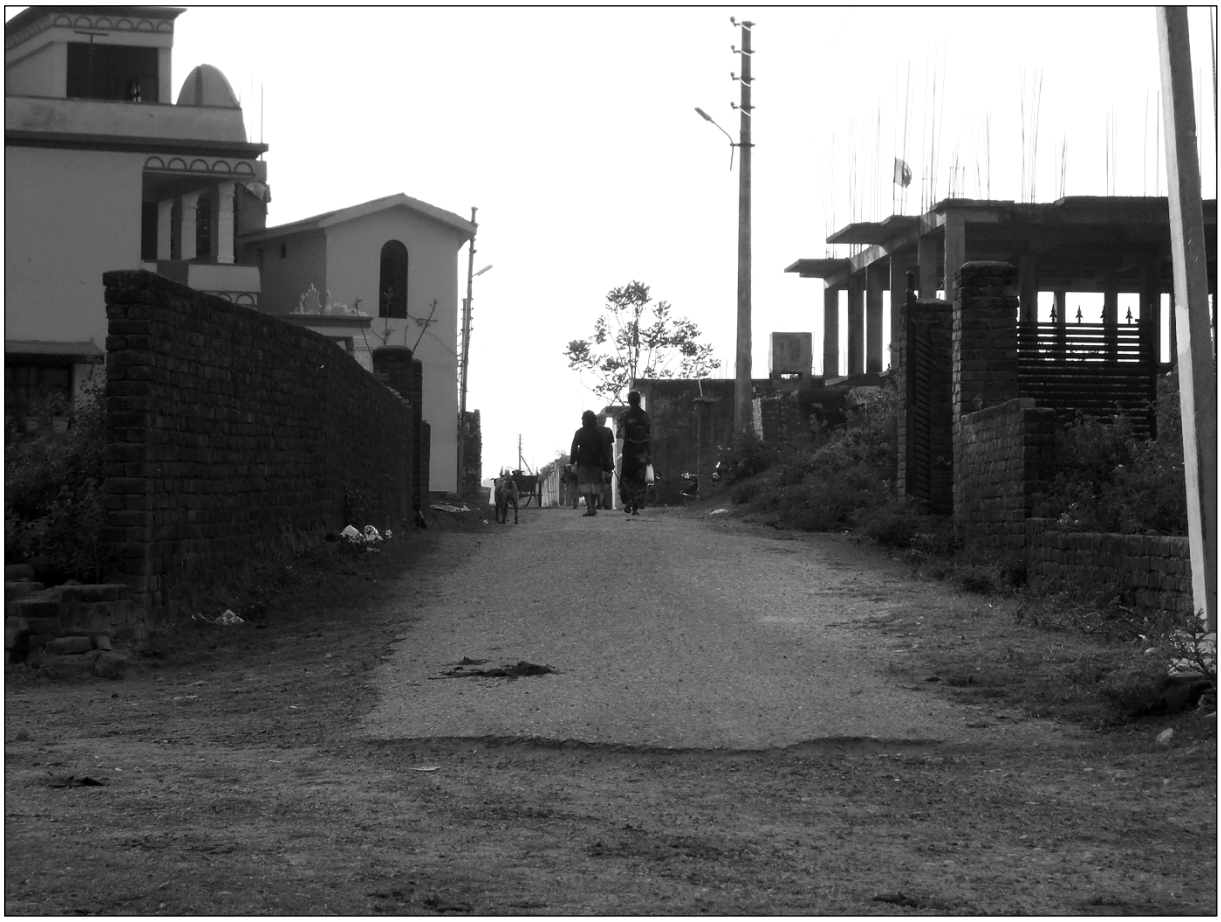

Figure 93: The iron rods of aspiration in Pashulok

In this final chapter, I explore the theoretical implications of my findings and make a case for bridging schooling and activism as part of an effort to redefine education's identity in the Anthropocene. I then locate the idea of this blended education (encompassing schooling, activism and other forces) within the debate on the future of the Anthropocene and argue that, while not a panacea, striving to educate for the Anthropocene is an important component of acting on our historical responsibility vis-à-vis future generations.

7.1 Bridging schooling and activism through a phenomenology of historical responsibility

One day at Durban South, two SDCEA activists—Bogani and one of his colleagues—came to the school to give a presentation to students about water scarcity. I hoped to witness an engagement between environmental activists and educators in real time and expected to hear a politicising narrative for the first time in my fieldwork at the school. Even though the children

seemed engaged and listened intently to what Bongani was saying (Fig. 94), the content was quite different from what I had seen at the community events SDCEA had organised for 'grown-ups'. There was no mention of environmental justice or the politics of environmental racism; the focus was solely on making children understand that water was a scarce resource and what they could do to help protect it—such as fixing a leaking tap in their home. It seemed that SDCEA lost its teeth when in the school environment and aligned itself with the dominant, politically neutered discourse of individualised responsibility.[2]

What might an educational intervention that has historical rather than individual responsibility at its core look like? By putting the theoretical framework of this thesis in conversation with the ethnographic findings, we can identify several modalities of political pedagogy that could underpin a politicising approach to ESE:

1. The intervention could challenge the dominant paradigm by constructing a hierarchy of debts in which the debt to the not yet born is seen as pressing. This would make it morally acceptable or indeed preferable to focus on fulfilling the moral obligations attached to this debt, rather than on the debt to the dead by engaging in the struggle for material progress.[3]
2. It could increase awareness of the ethical obligation of our debt to the not yet born and future inhabitants and of the actors obligated to carry this debt forward.
3. It might instil in students a belief in solvency—in the ability to repay, or at least not further increase, the debt to the not yet born.

Sensitisation to the debt to the not yet born is associated with 'negative' ESE (i.e., programmes

[2] Bobby Peek made a similar observation about SDCEA's school visits in his interview. Arguably, the age of the students in this particular session had to do with the depoliticised content, as the class was aimed at lower grade pupils. But SDCEA activists also shared with me in interviews that, in order to be able to work with the schools, the narratives they shared could not be beyond the pale of what educators were prepared to accept as part of the schooling process—and this was in turn influenced by the state-sanctioned curriculum.

[3] It is possible that such an effort would ultimately eliminate the need for a hierarchy, as a model of development not at odds with repaying the debt to the unborn might emerge.

that increase awareness of environmental issues), while instilling a belief in solvency is linked to 'positive' ESE (i.e., concentrating on empowerment for action rather than on the negative consequences of inaction).

ESE focused on individualised 'apolitical' efforts in much of the schooling I witnessed during the course of this research, which can be conceptualised as a metaphor for the third modality, as it tries to unlock students' potential—their capabilities (cf. Sen, 1999)—in order to empower them to act. Yet any ESE intervention will likely rely on a fusion of modalities to accomplish its goals. The reason the 'increased solvency' approach works best in tandem with other modalities is that both empowerment and awareness are embedded in the concept of ESE. Learners are not only constructed as being capable of action; this imagined action has a directionality. ESE, therefore, is intrinsically linked to the modalities of education that rely on making learners aware of their debt.

The notion of empowerment or solvency is key to this analysis. Many of the educators—teachers and activists alike—whose perspectives shaped this thesis sought to convey the message that human beings, regardless of their age, can have an impact on environmental sustainability. They therefore worked to expand young people's perception of both the temporal and the spatial domains of their agency. In ESE, individual and collective responsibilities (for the expansion of capability/solvency) are inextricably linked to awareness (sensitising learners to the debt they carry) and the construction and reordering of hierarchies of debts.

But this seeming convergence between teachers and activists is compromised by the ideoscapes of depoliticisation that shape the culture, political economy and practice of schooling in Pashulok and Wentworth. How can ESE operate in the context of a depoliticised, individualised and bureaucratised approach to the environment, not just in the realm of education but at the level of state ideology? In such a world, what can schooling learn from

activism? The propensity of activist movements in Pashulok and Wentworth to facilitate conversations among groups of people who often do not talk to one another (such as the living and the dead or coloureds and whites in South Africa) makes activism a potential vehicle for education. Schooling in spaces where activists who value agonistic pluralism are present has several options to try to get closer to the idea of 'educating for the Anthropocene'. It can relinquish its monopoly on education and recognise the importance of alternative actors and spaces in the process of educating youth, or it can work more closely with activists by integrating more of their approaches into the curricula and their pedagogies, or even bring activists directly into the schools.

Figure 94: Bongani talking about water at Durban South Primary[4]

[4] Faces of pupils have been blurred in this photograph to protect their identity, as this was a general school assembly and not all students were participating in my research or had signed informed consent.

7.2 Educating for the Anthropocene, political 'neutrality' and disruption

As my findings have shown, the schooling provided by Seema Primary and Durban South Primary is more likely to be an obstacle to, rather than an enabler of, educating for the Anthropocene. It could feel like the people there (learners and teachers alike) were being sold the false idea that the speed of slow violence is beyond their reach. These schools often appear to advance the sustainability of the socio-political status quo rather than of the planet and its natural environs. Sustainability in these systems is about shallow time, whose horizons extend no further than an individual lifespan or at most the lifespan of the current civilisation, rather than about deep geological time with its associated questions of planetary stewardship and our survival as a species (Davies, 2016).

Such schooling advances an imaginary that equates freedom with control or extending the reach of individual agency. Arendt, however, teaches us that we are only ever free in connection to others; she sees freedom as participation (Tlaba, 1987). It is arguably the lack of connection (both to humans and non-humans) that precipitated our environmental crisis. Tagore saw the flaw in modernity's promise of 'freedom' long ago and expressed his concern with the elegance of a poet: 'An automobile does not create freedom of movement, because it is a mere machine. When I am myself free, I can use the automobile for the purposes of my freedom' (Tagore, quoted in Shrivastava & Kothari, 2012, p. 246).[5] While the car for Tagore is a means to an end, for the anthropocenic imaginary it is an end in itself because it allows humans to overcome the 'limitation' of only being able to walk on foot (or on hand, for those so inclined).[6] When making a product becomes its own goal, the world of *Homo Faber*

[5] The original quote is from Tagore (1991, p. 71).

[6] 'The Anthropocene, as the reunion of human (historical) time and Earth (geological) time, between human agency and non-human agency, gives the lie to this—temporal, ontological, epistemological and institutional—great divide between nature and society that widened in the nineteenth and twentieth centuries' (Bonneuil & Fressoz, 2017, p. 32).

(preoccupied with what Arendt calls work) dominates the worlds of thought and politics and disconnects us not only from others but from significant parts of our own brains.

Schooling everywhere can, and must, do more. One could rightly object that many parts of the world—not accidentally, those carrying the most responsibility for the environmental crisis[7]—are better positioned to cope with the impact of anthropocenic violence than others who have lost or will lose everything. It is indeed true that everyone is and will be impacted differently, based on geography, wealth, collective and individual resilience and a plethora of other factors, but there is at least one way in which everyone is involved:[8] we now all carry the burden of responsibility for the fate of life on earth. Within the next few generations, or perhaps sooner, we could become the only known species that *chose* to become extinct and took all other species down with us. This moral predicament, unparalleled in human history, is universal. After all, even though the 'common people' in Nazi Germany often had little to do with the Holocaust, we are still left asking why they did not do anything. In their defence, they may say they did not know about the concentration camps while they were operational.[9] Today, given the copious scientific studies and unending media reports about the impending doom, we can hardly say the same about our complicity in what might become the Anthropocene's ultimate destruction, however powerless we might feel.

[7] The poorest are likely to be the most impacted by climate change. According to modelling by Rozenberg and Hallegate (2019), the world is likely to see between 3 and 122 million additional people living in poverty by 2030 (the variation is due to the many possible scenarios of the severity of climate change and other variables influencing poverty). Poor people, particularly in Africa, are also vulnerable to natural disasters such as floods and droughts (Winsemius et al., 2015). Small, low-income island countries, such as the Marshall Islands and the Maldives, are also among the most vulnerable (S.-A. Robinson, 2017), and their inhabitants might soon have, in the words of the Marshallese poet Kathy Jetnil-Kijiner (2014), 'only a passport to call home'.

[8] While it is established that the poor are and will be suffering disproportionately as a result of climate change, it is not necessarily true that the wealthy will be spared. Many of the wealthiest cities (New York, Sydney, Osaka Vancouver, San Francisco, Venice and many others) are built on coasts and may see significant flooding, depending on how much the sea level rises.

[9] Interviews with German citizens in the immediate aftermath of World War II suggest that, while the public at large knew of the concentration camps, they did not know their true purpose or the number of people sent there (Janowitz, 1946).

Such an all-encompassing predicament calls for a mass solution that is tailored to address it, such as schooling. As Prozesky (2009, p. 306) argues, 'we must look to education as the truly significant locus of planetary salvation', something international organisations and governments around the world claim to be doing. While the currently dominant idea of sustainable development that underpins their policies is arguably an oxymoron (as shown in Chapter 2), the underlying premise can hardly be disputed: humanity's predicament calls for an active and urgent response, and education has an important role to play in enabling and shaping action in concert with others[10]—the cultivation of which is, as I have argued in this thesis, a key part of the solution to the slow violence of the Anthropocene age.[11]

For education to take the concept and consequences of the Anthropocene seriously and prepare young people to live in a world facing planet-wide existential challenges would be nothing short of a massive disruption of the dominant paradigms, cultures and practices of education around the world.[12] In the Anthropocene, education's responsibility cannot be reduced to the transmission of knowledge and skills or cultivation of specific behaviours (such as recycling) or even the advancement of critical thinking. Education in the Anthropocene needs to find ways to enable individual and collective reflection on our historical responsibility for the fate of the planet and of humanity that we now all carry while simultaneously facilitating action on this responsibility. The onset of the Anthropocene challenges the very definition of education and its fundamental goals and calls for research that looks outside the conventional

[10] One that is rooted in freedom (which arises through participation) and spontaneity (Schell, 2010, pp. 251–254).
[11] This point also echoes the work of Dewey who reminds us of education's important role in the functioning of democracies. While this theme was explored across a range of Dewey's writings, perhaps the most significant in this regard is his monograph *Democracy and Education* (1916).
[12] The barons of Silicon Valley are, perhaps, correct in assuming that the solutions to the challenges of our era lie in innovation (Musk, 2017), in charting paths previously unknown. But excluding billions of people from the process of finding these innovations (which might in fact be rooted in existing knowledge and practices) would be like having billions of supercomputers at our fingertips and not engaging them in solving the most complex of problems—except that humans have much more to offer than mere computing power: a mosaic of their subjective experiences, cultures and languages, their emotions, their poetry, their genius, their intrinsic care for the species and the planet (however suppressed these may be).

paradigms, spaces and practices of education for inspiration to help education fulfil its responsibilities at this unprecedented time.

One starting point is to recognise that there is no such thing as politically neutral education (Freire, 1972, 1998, 1999), however often the discipline itself may repeat the misguided belief that it exists.[13] Not designing our education policies and systems with the goal in mind of rendering ourselves more political would mean shooting ourselves in the foot, because whether we like it or not, education will have an impact on the politics of our society.[14] This will happen by either advancing bureaucratisation (as is currently the case for many education systems around the world) or helping people see the ways they are already bureaucratised (and the ways out of this predicament). ESE cannot afford to be politically neutral in a world so polarised around environmental issues, for neutrality itself is a form of politics that normalises the status quo.

At the same time, education is not a panacea. This is in part because changes in education systems can take years, if not decades, to manifest in society at large. Another reason is education's inherent limitations, as Arendt points out:

> *He who seriously wants to create a new political order through education, that is, neither through force and constraint nor through persuasion, must draw the dreadful Platonic conclusion: the banishment of all older people from the state that is to be founded. But even the children one wishes to educate to be citizens of a Utopian morrow*

[13] Such pretence of neutrality is often present in discourses of education in the context of international development, where terms like 'access', 'enrolment', 'literacy and numeracy' and others are used to describe the goals and effects of education without acknowledging the political dimension of schooling. One of the most vocal critics of this trend is Manish Jain (2013), who in his writings refers to Education for All as 'McEducation for All' and emphasizes the effect of 'westernising' students through schooling and interfering with the transmission of indigenous knowledge.

[14] It may well be that, in some spheres of human endeavour, aiming for 'the political' may not be the most pragmatic goal in the face of the Anthropocene's challenges, but when it comes to education, pragmatism and politics are on the same side—not least because when Amartya Sen wrote that the aim of development (and education) ought to be ensuring that people lead lives they have a reason to value (Sen, 1999), he was very much imagining a world that embraces politics. This link is evident in much of the literature about the 'capability approach' to development coined by Amartya Sen and Martha Nussbaum in the links between the approach's focus on agency and sense of belonging (Deneulin & McGregor, 2010; Glassman & Patton, 2014; Robeyns, 2005) and Arendt's concept of politics. Mathias and Herrera (2006) have, through hermeneutic analysis, pointed to further links to Arendt and Ricœur, especially between the notion of capability and Arendt's conception of 'action' and 'power'.

> *are actually denied their own future role in the body politic, for, from the standpoint of the new ones, whatever new the adult world may propose is necessarily older than they themselves. It is in the very nature of the human condition that each new generation grows into an old world, so that to prepare a new generation for a new world can only mean that one wishes to strike from the newcomers' hands their own chance at the new. (Arendt, 1961, p. 177)*

This sobering conclusion cautions us against seeing education as an instrument of social engineering for building a new, utopian world. However, this should not stop us from determining how to align education systems with the needs of the new geological epoch we live in. Such answers are, almost by definition, partial and localised; if I learned one thing while working on this thesis, it is that there is no one way to educate for the Anthropocene. There is not even a singular Anthropocene to speak of (cf. Yusoff, 2018a). But, there is a finite earth threatened by humanity's thirst for infinite growth—and that is why we need to talk about educating for the Anthropocene.

7.3 A radical historiography of the 'now'

The ancient Greek word *anthropos*—human—has a rather peculiar origin. According to some translations, it means 'he who has the face of a man'.[15] Gender bias aside, this interpretation implies that it is possible to be a person and not be human. And, conversely, if we grant personhood to the non-human, as many cultures around the world do, it is also possible to have the face of a (wo)man without being human. We live in an age marked by both—human beings dehumanised in the name of progress, and non-human earthly landscapes simultaneously transformed into the face of man[16]—while being deprived of the fecundity that has sustained life, the only life in the universe known to us, for millions of years. It is as if the cultural lens

[15] This translation of the term assumes that *anthropos* is a compound of *anēr* and *ops* (eye, face), but this theory has not been proved and the term is frequently translated simply as 'human being' (Etymonline: Online Etymology Dictionary, n.d.).

[16] It is, arguably, appropriate to use the term 'man' rather than 'human being' when referring to the Anthropocene imagination, given the imprints of masculinity that have shaped it (Grear, 2015; Grusin, 2017).

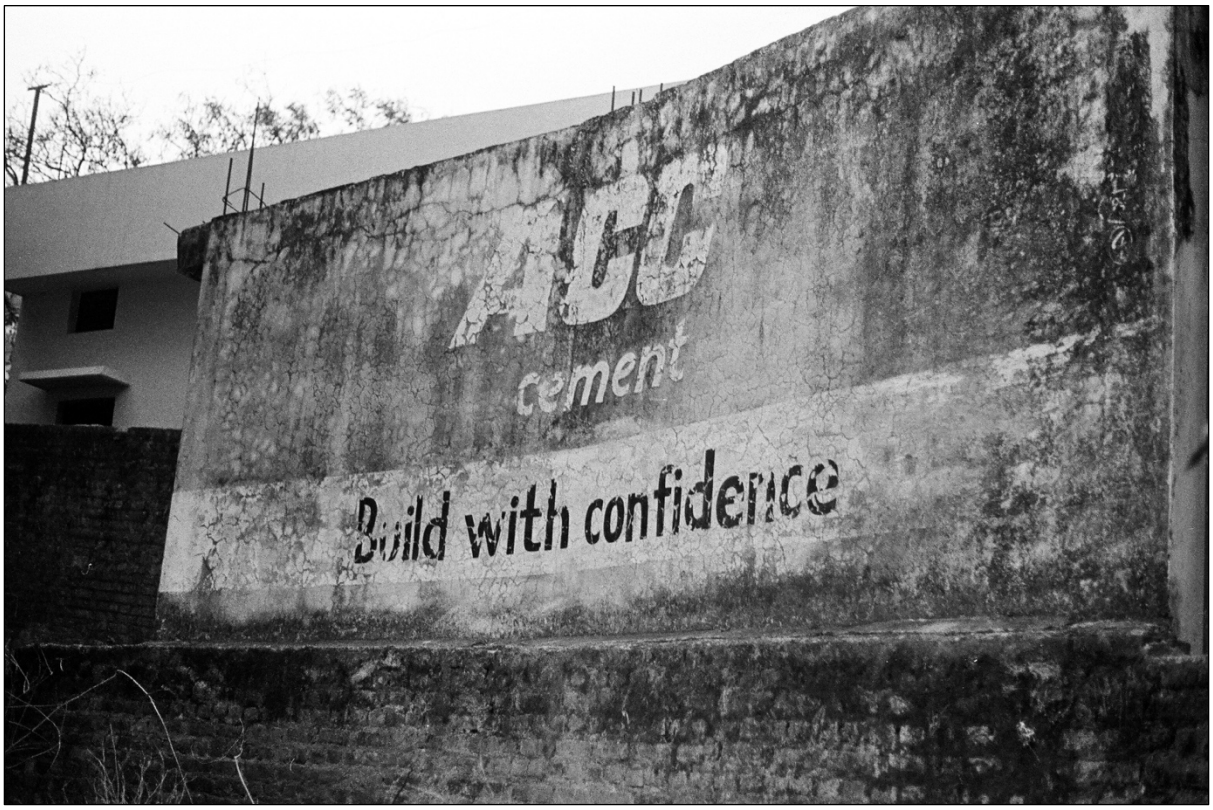

Figure 95: 'Build with confidence'

of our age blinds us to the humanity of suffering and instead propels us to put our face on the very landscapes that nourish and sustain us. Rather than seeing the 'other' as human, we want to build monuments to humanity on earth (and in space), unaware that what we are really building is our own gravestones. This ethnography is about this very paradox—or, more precisely, about showing that education helped move us to this juncture and that it also may be key in helping us survive.

As I bring this narrative to a close, two images stay with me. One is of an old advertisement for concrete in Pashulok (Fig. 95), and the other is of human handprints on a wall surrounding a factory in South Durban (Fig. 96). Both are seemingly banal scenes, yet both tell a story about educating for the Anthropocene. The slogan 'Build with confidence' painted over cracking, aging concrete evokes the false promises of Anthropocene's architects, the misplaced confidence in modernity and technological progress that underpins the myriad ways slow violence undermines our confidence in the future of the planet and of humanity. The

Figure 96: Coming full circle: Handprint in South Durban

handprints, on the other hand, appear to scream, 'We, the people who live in Wentworth, also are here!' and remind the barons of industry that fenceline communities will not give up their struggles for environmental justice and, by extension, their historical responsibility to future generations. I believe that educating for the Anthropocene means simultaneously giving life to both of these mental images—the intellectual recognition of duplicity and the galvanizing of the hopefulness of action.

How can research help us get there? In this thesis, I have charted several ways to trace ideoscapes of depoliticization and capture radical historiographies of slow violence and depoliticising states in the 'here and now'. I demonstrated the potential of innovative participative methods not only to identify transgenerational knowledge about the environment but also to help facilitate its transmission onto new generations. Slow violence knows no

borders, and this work shows the need for transnational ethnographic research to help negotiate the complexity of the liminal field of education in the Anthropocene. I also pointed to the ability of 'old theories' to speak to 'new realities' in a temporal arc that advances our understanding of slow violence; while the environmental crisis is unprecedented in scope the dynamics that led to it are not new, and much can be learned by thinking with 20th-century thinkers such as Arendt and Ricœur about how we read the 21st-century cultural landscapes of the Anthropocene. But much more needs to be done to advance our understanding of educating for the Anthropocene. Conducting similar research studies at more sites will expand the lexicon of existing ideas and practices (of educators, activists and others) and be helpful in understanding education's role in the human age. Wider spatial and conceptual lenses are both needed; activism is just one of many education modalities that can be studied for the unique contribution they make to facilitating Arendtian politics. Spaces of spirituality and faith and the many modes of knowledge transmission among indigenous communities are two areas of research that are needed to gain a fuller picture of humanity's collective ability to define and practice education for the Anthropocene. In this way, research can help humanity find the radical historical consciousness needed to take action.

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Appendices

List of appendices

Appendix A: A model of vertical and horizontal agonistic pluralism

The two logics of agonistic pluralism I propose in Chapter 6 of this thesis can be visualised as processes of gradual thinning of the lines dividing humanity, releasing groups of people from the liminal spaces of isolation created by the "us-them" divides underpinning social, cultural and temporal identities. In Fig. 97, the grey ring segments represent a portion of humanity that has lived in a given space over generations. The black lines stand for divides enacted and experienced by people alive at a given time (i.e., intragenerational divides), the most extreme examples of which might be the black-white segregation in (post)apartheid South Africa or the upper caste/untouchable divide in India. The white lines, like a tree's annual rings, separate generations; these can be both manufactured (e.g., "the modern people of today" and "the primitive savages of the past") and rooted in a phenomenology of life and death (experiencing the living as present and the dead as absent).

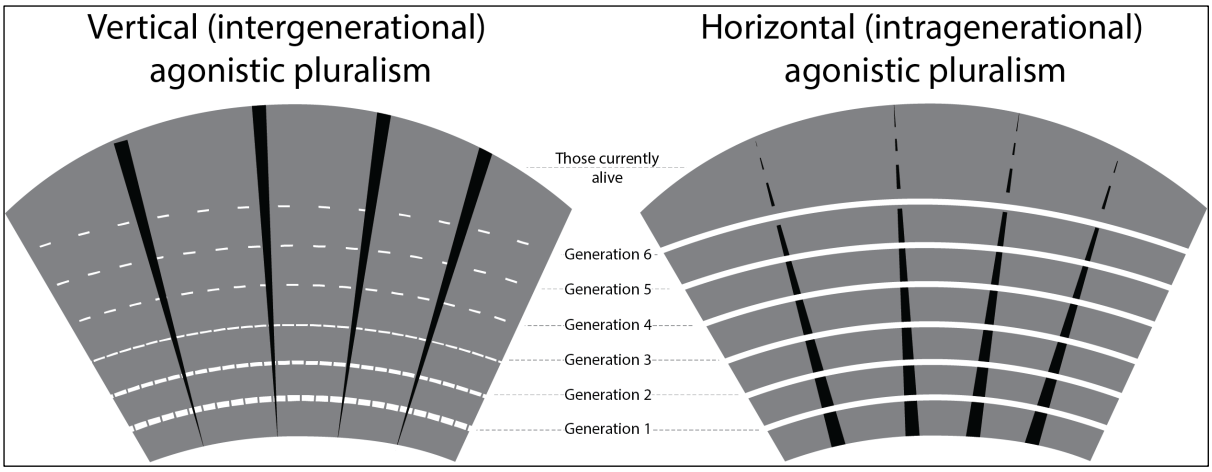


Figure 97: Visualising vertical and horizontal agonistic pluralism

On the left, vertical agonistic pluralism (dialogic engagement across generations in response to hard questions that call for agonising) leads to the thinning of temporal frontiers and turns them into porous borderlines allowing political imaginary to engage with those on both sides. The further we go back in time, the thicker and less porous the border, for it is the more recent generations that can be "made alive" through memory whose ability to act as a

temporal bridge becomes harder with each earlier generation.[1] The black lines, on the other hand, while not becoming porous, get thinner as we go back in time, since contemporary social order becomes more difficult to embody in the imaginary of earlier worlds that were ruled by social orders of their own.[2] In the second scenario, on the right, horizontal (intragenerational) agonistic pluralism leads to a thinning and punctuating of social divides among the living (as well as thinning them in the imaginary of the recently dead generations that are alive in memory). Here, the lines dividing generations remain unaffected.[3]

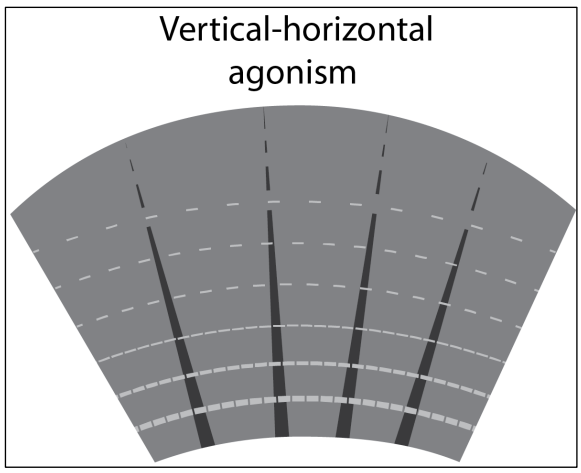


Figure 98: The joint action of vertical and horizontal agonistic pluralism

The joint action of the two—"horizontal-vertical agonism—is depicted in Fig. 98. In this rendering, not only are both the intragenerational and intergenerational divides becoming thinner and more porous as we move in time towards those currently alive, but the nature of

[1] This was the case with the memory of activism in Pashulok and Wentworth, but it may not necessarily be so everywhere. While memory plays a key role in shaping a perception of common humanity with the (recently) dead, there may be other forces at play that are even more powerful, such as creation myths and story-telling that bring us closer to imagined 'original' or 'pioneering' generations. Examples include the myth of the 'founding fathers' of the United States (Paul, 2014), or the 1835 Great Trek of the Boers in South Africa, seen by many of the Afrikaans people as a point of ethnic pride and the source of the country's prosperity (Grundlingh & Sapire, 1989).

[2] This, too, may not always be the case, and it is possible that in some circumstances vertical agonistic pluralism might have the secondary effect of increasing empathy, which might cause the perceived boundaries between us and the currently alive and (recently) dead (who form a part of our memory) to become thinner instead. It may also be the case that cultural knowledge and practices may reinforce exclusionary notions towards earlier generations; this may be the case with (post)colonial ideologies that see early generations of 'natives' as particularly 'primitive' and 'uncivilised' (cf. Césaire, 1972).

[3] The reason vertical agonistic pluralism is likely to produce the by-product of lessening non-temporal divides but not vice versa is that all divides within generations of the dead necessarily exist in memory and/or imagination, making them inherently temporal. Horizontal agonistic pluralism, on the other hand, cuts across space in the present and in its focus on the ontological may not directly engage the temporal, leaving our sense of presence/absence of the dead unchanged.

these divides changes (in this depiction represented by the colour of the lines changing from black and white to dark grey and light grey, partially blending in with the "grey" humanity). These divides are not absolute, for the combined logics of vertical-horizontal agonism require us to recognise elements of humanity across time and space, making liminal isolationism an unlikely outcome. That is why such "all-embracing" agonism—one that does not agree with everyone but engages in a dialogue with anyone—is the enemy of totalitarianism (cf. Arendt, 1962).

Appendix B: Pilot study sample observation schedule

Classroom Observation

School: _____ Date _____

Time: _____ Length: _____

Voice recording: Y/N If so, recording number:_____

Type of interaction observed:

- ☐ School lesson—grade/class: _____ Title of lesson: _____
- ☐ Extracurricular activity—name of activity: _____
- ☐ Individual tutoring—reason for tutoring: _____
- ☐ Other _____

Language(s) of interaction:_____

Interpreter present: Y/N If so, interpreter name: _____

School staff present:

Name	Gender	Approx. age	Position in the school	Notes		
					Themes	Codes
1.						
2.						
3.						

Number of learners present: _____

Approx. # of boys: _____ Girls: _____ Age distribution: _____

Approximate structure of lesson:

Minute	Content (topic)	Style of interaction	Awareness/action	Specific content		
					Themes	Codes
0-5	LE GE LS GS	D TI SI TW IW	HP 1 2 3 4 5 FP			
5-10	LE GE LS GS	D TI SI TW IW	HP 1 2 3 4 5 FP			
10-15	LE GE LS GS	D TI SI TW IW	HP 1 2 3 4 5 FP			
15-20	LE GE LS GS	D TI SI TW IW	HP 1 2 3 4 5 FP			
20-25	LE GE LS GS	D TI SI TW IW	HP 1 2 3 4 5 FP			
25-30	LE GE LS GS	D TI SI TW IW	HP 1 2 3 4 5 FP			
30-35	LE GE LS GS	D TI SI TW IW	HP 1 2 3 4 5 FP			
35-40	LE GE LS GS	D TI SI TW IW	HP 1 2 3 4 5 FP			
40-45	LE GE LS GS	D TI SI TW IW	HP 1 2 3 4 5 FP			
45-50	LE GE LS GS	D TI SI TW IW	HP 1 2 3 4 5 FP			
50-55	LE GE LS GS	D TI SI TW IW	HP 1 2 3 4 5 FP			
55-60	LE GE LS GS	D TI SI TW IW	HP 1 2 3 4 5 FP			

Key

Content: LE—local environmental issues GE—global environmental issues
LS—sustainability discussed on a local level GE—sustainability discussed on global level

Style of interaction: D—didactic TI—teacher-student interaction SI—student-student interaction
TW—teamwork IW—independent work

Awareness/action: Scale from HP—*handprint* approach (action-oriented), FP—footprint (awareness)

Is observation related to/following up from another interaction previously recorded? Which one(s):

What formed the main content of the lesson? Did the teacher or any of the learners refer to local knowledge about the environment (including political/social movements, indigenous knowledge, local economy, etc.)? Did the students raise any issues about these matters in the dialogue? What ethical and political issues came up in relationship to the lesson and local context?

	Themes	Codes

What were the definitions of 'development'/'sustainability' used/implied by teacher and students? What was the language used to describe these concepts? Were any metaphors or visualisations used? Did the teacher or students discuss anything related to history of development and sustainability?

	Themes	Codes

Local environmental/sustainability challenges touched upon:

	Themes	Codes

Global environmental/sustainability challenges touched upon:

	Themes	Codes

Any tensions between teacher and learners:

	Themes	Codes

Textbooks, materials, visual aids used:

	Themes	Codes

Did any part of the lesson take place outdoors? If so, what was the location and amount of time spent, and what was the purpose of this activity? Were ethical and political issues discussed?

	Themes	Codes

Practical skills used/developed as part of the lesson:

	Themes	Codes

Any project-based learning:

	Themes	Codes

(Pre-interview): Teacher's stated pedagogical goals for the lesson:

	Themes	Codes

(Post-interview) Teacher's self-assessment of the extent to which goals achieved, and any challenges:

	Themes	Codes

Are further notes about this interaction recorded in the ethnographic diary? If so, page # _____

Appendix C: Pilot study sample interview instrument

Semi-structured interview with learners

Name: _____ Place: _____

Date and time: _____ Length: _____

Voice recording: Y/N If so, recording number:_____

Language(s) of interview:_____

Interpreter present: Y/N If so, interpreter name: _____

Age: _____ Gender: _____ School: _____ Class/grade:_____

Question prompts and notes

1. Please tell me a bit about what your life has been like in [location].
    a. What are your first memories of this place or where you originally came from?

	Themes	Codes

    b. Who have been the most important people in your life?

	Themes	Codes

    c. What do you like the most about [location]? The least?

	Themes	Codes

    d. What do you find the most challenging/rewarding about this area/school?

	Themes	Codes

    e. Do you feel safe here? What kinds of things upset you/do you appreciate about your home and surroundings? Can you give me a picture of where you live or describe the characteristics of your home and the community? Do people care about this place and do they look after it? If so, how? What do they do?

	Themes	Codes

2. Do you enjoy your environmental education class? Why (not)? What sort of things are you learning about? When I say the word 'environment,' what does that mean to you?

	Themes	Codes

3. What are your hopes for the future?
    a. Where do you see yourself in ten years' time?

	Themes	Codes

b. If you could imagine this place as the most beautiful, what would you want it to look like? Where do you see your country/home community in ten years' time? What would this place look like to you in ten years?

	Themes	Codes

4. What do you think are your parents' hopes for your future? How about their hopes for the environment?

	Themes	Codes

5. And how about your grandparents? What do you think their hopes are for you (would be if they were alive)?

	Themes	Codes

6. How important are your parents'/grandparents' wishes for you when you make decisions about your life? Do they share any negative feelings about the community or its past with you?

	Themes	Codes

7. Can you give me an example of a decision you made in which your parents'/grandparents' opinions were important? And an example of a decision you made without considering their opinion? Were these decisions related to this place and your life experience here or not?

	Themes	Codes

8. What are your hopes for future generations (in relationship to improving their life circumstances in this place)? If you have children, what would you wish for them? How about your grandchildren? Why? Will you want them to be here and if so why? Can you imagine what the barriers are?

	Themes	Codes

9. Some people divide the world between two types of countries—developed and undeveloped ones (explain meaning if necessary). Do you agree with this division? How does this division relate to your community?
    a. Which side do you think your country is on? Why?

	Themes	Codes

    b. Tell me about how your country is doing. What are your feelings about that? Do you feel happy/sad, optimistic/pessimistic?

	Themes	Codes

    c. In comparison to other parts of your country, what do you notice about your region?

	Themes	Codes

10. Your environmental education class focuses on ‘sustainability’ (explain if necessary). In what ways, if any does this class influence the ways you think about the future of the environment? What does this word mean to you? Try and visualize it if you find it hard to describe. Could you draw it for me?

	Themes	Codes

11. What have you learned about ‘sustainability’ in school?

	Themes	Codes

12. Is there anything you disagree with among the things you have learned? Do others in the community disagree with anything you have learned in school about the environment, or any of the practical projects you have engaged in?

	Themes	Codes

13. Do you think it is possible to have both development and sustainability?

	Themes	Codes

14. In your own life, how do you contribute to sustainability, or how do you imagine you might like to contribute to sustainability in the future?

	Themes	Codes

Are further notes about this interaction recorded in the ethnographic diary? If so, page # _____

Appendix D: Pilot study sample focus group instrument

Perceptions of ESD among learners

Date and time: _____ Length: _____ Place: _____

Voice recording: Y/N If so, recording number:_____

Language(s) of interview:_____

Interpreter present: Y/N If so, interpreter name: _____

Students present:

Name	Gender	Age	Class	Notes		
					Themes	Codes
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Question prompts and answers

1. How much do you enjoy your environmental education classes?

	Themes	Codes

2. Do you find what you learn in the classes useful in your daily life? If so, how? If not, why not?

	Themes	Codes

3. Is there anything you have learned in your class that you disagree with? What might these things be and why? Are you able to share these in your class or with your teacher?

	Themes	Codes

4. What can we do to make the world more sustainable? Can you share with me particular instances of learning *handprint* that have helped you more easily answer this question?

	Themes	Codes

5. In your opinion, does your education help you contribute to sustainability?

	Themes	Codes

6. What have you learned about the biggest dangers to sustainability? Are there other things you know that you have not learned in school about dangers to sustainability? Can you share those with me? How do they make you feel?

	Themes	Codes

Appendix E: Permission to conduct school-based research

UNIVERSITY OF CAMBRIDGE
Faculty of Education

184 Hills Road | Cambridge | CB2 8PQ | United Kingdom | 00 44 1223 767600
reception@educ.cam.ac.uk

Permission to Conduct School-Based Research

Dear _____,

Thank you for participating in a study of education for sustainability education in South Africa and India. The research project*, "(De)Politicising Education for Sustainable Development: An Ethnography on the 'Margins'",* is a part of a PhD project at Cambridge University conducted by Peter Sutoris.

The project is concerned with the ways in which Education for Sustainable Development programmes shape student perceptions of 'development,' 'sustainability' and their experience learning about these concepts in the context of India and South Africa. I hereby request your permission to conduct part of my research at your school, _____, from _____ to _____. The research involves individual interviews, focus groups, classroom group exercises, classroom observation, taking photographs and videos in and around the school, and possibly engaging students through online platforms. During interviews and focus groups, the youth participants will be asked to describe their experiences of schooling, understanding of history and imagination of future as it relates to environmental issues, and their responses to recent social, political and educational developments. They will also engage in some classroom-based, practical activities which explore their views on these concepts in greater depth. The kinds of activities in which they will be involved in your classroom include, but are not limited to, the following: constructing mind-maps, video projects, watching films and responding to them. Some of these activities will, if possible, take place in the classroom/educational program that you oversee.

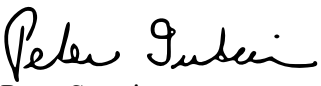
With your permission, some of these interactions will be audiotaped and transcribed. On each such occasion, I will make it clear to all involved parties that the meeting is being recorded for research purposes to ensure that individuals who are concerned about being recorded have an opportunity to raise their concerns. Tapes will be labeled with pseudonyms and names will be deleted from any transcripts and replaced by pseudonyms. Tapes and transcripts will be kept in locked files and will be available only to the researcher. All the raw data collected during the observations will be kept in confidence. All tapes, transcripts, classroom observation notes, and field notes will be destroyed when the study and publications from it are complete.

Results of the study will be presented at national and international conferences, to my degree committee at Cambridge University, to policymakers responsible for the design and implementation of environmental education programs, and may be published in article or book form in the future.

Your participation in the study is completely voluntary and you may refuse to answer any particular questions and/or request that the tape recorder be turned off during the interview. You may withdraw from the study at any time by simply indicating to me your intention to withdraw without risk of any evaluative judgement being made about you. In addition, you or your child may contact the Humanities and Social Sciences Research Ethics Committee at Cambridge University (+44 1223 766238, cshssethics@cam.ac.uk), should you have any concerns about your treatment or rights as a participant in the project. All raw data connected to your participation will be immediately destroyed. Lastly, all participants are welcome to a copy of the study results if they would like one.

Please contact me at the address provided below for further information. If you agree to participate, we ask that you please sign the consent form provided overleaf and return it to me at the commencement of the observation period. Thank you for your time and assistance

Sincerely,



Peter Sutoris
PhD Candidate, Cambridge University
+44 7530 827244, ps623@cam.ac.uk

Supervised by:
Dr. Jo-Anne Dillabough, Reader, Faculty of Education, Cambridge University
+44 1223 767630, jd217@cam.ac.uk

UNIVERSITY OF CAMBRIDGE
Faculty of Education

184 Hills Road | Cambridge | CB2 8PQ | United Kingdom | 00 44 1223 767600
reception@educ.cam.ac.uk

Permission to Conduct School-Based Research

1. I have read and understood the information on the Informed Consent letter overleaf. ☐
2. I grant consent for classroom observations, interviews, focus groups and classroom exercises to conducted at my school, as outlined in the letter. ☐
3. I grant consent for photographs and videos to be taken in and around the school. ☐
4. I understand who will have access to the personal data collected during the study. ☐
5. I understand how personal data will be stored and what will happen to the data at the end of the project. ☐
6. I understand that the research will be written up in a thesis completed at the University of Cambridge, as well as in the form of publications (e.g., journal articles, book chapters, conference papers, policy briefs, research blogs and other potential public record forms) as well as for use in for future research. ☐
7. I consent to audio recordings as long as warning is given in each instance of recording. ☐
8. I understand that audio recordings will be used in research outputs such as presentations at academic conferences, journal publications and research archives. ☐
9. I understand how to raise concerns or make a complaint. ☐

Name of Participant: _____

Signature: _____ Date: _____

Name of researcher: _____

Signature: _____ Date: _____

Appendix F: Individual informed consent form for adults

UNIVERSITY OF CAMBRIDGE
Faculty of Education

184 Hills Road | Cambridge | CB2 8PQ | United Kingdom | 00 44 1223 767600
reception@educ.cam.ac.uk

Informed Consent with Recorded Interview for Adults

Dear _____,

Thank you for participating in a study of education for sustainability education in South Africa and India. The research project, *"(De)Politicising Education for Sustainable Development: An Ethnography on the 'Margins'",* is a part of a PhD project at Cambridge University conducted by Peter Sutoris.

The project is concerned with the ways in which Education for Sustainable Development programmes shape student perceptions of 'development,' 'sustainability' and their experience learning about these concepts in the context of India and South Africa. As part of this research, I am conducting interviews with informants in research sites in both countries. The goal of these interviews is to gain a better understanding of the environmental and developmental issues facing local communities, the history of any environmental injustices in the area, and the ways in which programmes like *handprint* might fit in with existing efforts.

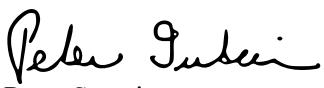
With your permission, the interview, which is not expected to take more than 90 minutes, will be audiotaped and transcribed. On each such occasion, I will make it clear to all involved parties that the meeting is being recorded for research purposes to ensure that individuals who are concerned about being recorded have an opportunity to raise their concerns. Tapes will be labeled with pseudonyms and names will be deleted from any transcripts and replaced by pseudonyms. Tapes and transcripts will be kept in locked files and will be available only to the researcher. All the raw data collected during the observations will be kept in confidence. All tapes, transcripts, classroom observation notes, and field notes will be destroyed when the study and publications from it are complete.

Results of the study will be presented at national and international conferences, to my degree committee at Cambridge University, to policymakers responsible for the design and implementation of environmental education programs, and may be published in article or book form in the future.

Your participation in the study is completely voluntary and you may refuse to answer any particular questions and/or request that the tape recorder be turned off during the interview. You may withdraw from the study at any time by simply indicating to me your intention to withdraw without risk of any evaluative judgement being made about you. In addition, you or your child may contact the Humanities and Social Sciences Research Ethics Committee at Cambridge University (+44 1223 766238, cshssethics@cam.ac.uk), should you have any concerns about your treatment or rights as a participant in the project. All raw data connected to your participation will be immediately destroyed. Lastly, all participants are welcome to a copy of the study results if they would like one.

Please contact me at the address provided below for further information. If you agree to participate, we ask that you please sign the consent form provided overleaf and return it to me at the commencement of the observation period. Thank you for your time and assistance.

Sincerely,



Peter Sutoris
PhD Candidate, Cambridge University
+44 7530 827244, ps623@cam.ac.uk

Supervised by:
Dr. Jo-Anne Dillabough, Reader, Faculty of Education, Cambridge University
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UNIVERSITY OF CAMBRIDGE
Faculty of Education

184 Hills Road | Cambridge | CB2 8PQ | United Kingdom | 00 44 1223 767600
reception@educ.cam.ac.uk

Informed Consent with Recorded Interview for Adults

1. I have read and understood the information on the Informed Consent letter overleaf. ☐
2. I grant consent for my interview to be audiotaped and transcribed.. ☐
3. I understand who will have access to the personal data collected during the study. ☐
4. I understand how personal data will be stored and what will happen to the data at the end of the project. ☐
5. I understand that the research will be written up in a thesis, published as an article in an academic journal, used for presentations at conferences and for future research. ☐
6. I understand that the research will be written up in a thesis completed at the University of Cambridge, as well as in the form of publications (e.g., journal articles, book chapters, conference papers, policy briefs, research blogs and other potential public record forms) as well as for use in for future research. ☐
7. I understand that audio recordings will be used in research outputs such as presentations at academic conferences, journal publications and research archives. ☐
8. I understand how to raise concerns or make a complaint. ☐

Name of Participant: _____

Signature: _____ Date: _____

Name of researcher: _____

Signature: _____ Date: _____

Appendix G: Individual informed consent form for minors

UNIVERSITY OF CAMBRIDGE
Faculty of Education

184 Hills Road | Cambridge | CB2 8PQ | United Kingdom | 00 44 1223 767600
reception@educ.cam.ac.uk

Informed Consent with Recorded Interview for Minors (to be signed by parents)

Dear _____,

Thank you for letting your child, _____, participate in a study of education for sustainability education in South Africa and India. The research project, *"(De)Politicising Education for Sustainable Development: An Ethnography on the 'Margins'"*, is a part of a PhD project at Cambridge University conducted by Peter Sutoris.

The project is concerned with the ways in which Education for Sustainable Development programmes shape student perceptions of 'development,' 'sustainability' and their experience learning about these concepts in the context of India and South Africa. As part of this project, I am conducting research with young people at the school attended by your child. The research involves individual interviews, focus groups, classroom group exercises, classroom observation, taking photographs and videos in and around the school, and possibly engaging students through online platforms. During interviews and focus groups, the youth participants will be asked to describe their experiences of schooling, understanding of history and imagination of future as it relates to environmental issues, and their responses to recent social, political and educational developments. They will also engage in some classroom-based, practical activities which explore their views on these concepts in greater depth. The kinds of activities in which they will be involved in your classroom include, but are not limited to, the following: constructing mind-maps, video projects, watching films and responding to them.

Some of these interactions might be audiotaped and transcribed. On each such occasion, I will make it clear to all involved parties that the meeting is being recorded for research purposes to ensure that individuals who are concerned about being recorded have an opportunity to raise their concerns. Tapes will be labeled with pseudonyms and names will be deleted from any transcripts and replaced by pseudonyms. Tapes and transcripts will be kept in locked files and will be available only to the researcher. All the raw data collected during the observations will be kept in confidence. All tapes, transcripts, classroom observation notes, and field notes will be destroyed when the study and publications from it are complete.

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Your participation in the study is completely voluntary and you may refuse to answer any particular questions and/or request that the tape recorder be turned off during the interview. You may withdraw from the study at any time by simply indicating to me your intention to withdraw without risk of any evaluative judgement being made about you. In addition, you or your child may contact the Humanities and Social Sciences Research Ethics Committee at Cambridge University (+44 1223 766238, cshssethics@cam.ac.uk), should you have any concerns about your treatment or rights as a participant in the project. All raw data connected to your participation will be immediately destroyed. Lastly, all participants are welcome to a copy of the study results if they would like one.

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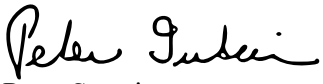

Peter Sutoris
PhD Candidate, Cambridge University, +44 7530 827244, ps623@cam.ac.uk

Supervised by:
Dr. Jo-Anne Dillabough, Reader, Faculty of Education, Cambridge University
+44 1223 767630, jd217@cam.ac.uk

UNIVERSITY OF CAMBRIDGE
Faculty of Education

184 Hills Road | Cambridge | CB2 8PQ | United Kingdom | 00 44 1223 767600
reception@educ.cam.ac.uk

Informed Consent with Recorded Interview for Minors (to be signed by parents)

1. I have read and understood the information on the Informed Consent letter overleaf. ☐
2. I grant consent for my child, _____, to participate in the research. ☐
3. I understand who will have access to the personal data collected during the study. ☐
4. I understand how personal data will be stored and what will happen to the data at the end of the project. ☐
5. I understand that the research will be written up in a thesis completed at the University of Cambridge, as well as in the form of publications (e.g., journal articles, book chapters, conference papers, policy briefs, research blogs and other potential public record forms) as well as for use in for future research. ☐
6. I consent to audio recordings as long as warning is given in each instance of recording. ☐
7. I understand that audio recordings will be used in research outputs such as presentations at academic conferences, journal publications and research archives. ☐
8. I understand how to raise concerns or make a complaint. ☐

Name of Parent: _____

Signature: _____ Date: _____

Name of researcher: _____

Signature: _____ Date: _____

Appendix H: Ethnographic diary reflection sheet

Date: _____ Days in the field: _____Field site: _____

Critical incidents/encounters during the day:

1.

2.

3.

Implications to research questions:

Implications to study of the politics of ESE:

Notable new contacts developed today:

Insights into local culture/politics/economics as it relates to the politics of ESE:

Any definitions of 'development' and 'sustainability' not compatible with Western-centric definitions encountered today?

What are my reflections on the events of today? In what ways are these reflections shaping my interpretations? What conflicts of interpretation am I experiencing?

How do these reflections help me rethink methodological practice?

Action points to improve methodological rigour:

Any references to scholarly writings, prose, films, music, other works of art encountered today that are relevant to my inquiry that I had not consulted today:

Reminders to self about crucial action points moving forward in the fieldwork:

Appendix I: Participatory observational filmmaking prompt

An observational video challenge[1]

Shoot an observational film!

Choose a subject that says something about the environment you live in. Try different subjects!

Observational films do not need to tell a story. They are not made up dramas. They try to show life as it happens. You will need to be patient and wait to see what happens. You may need to follow events as they happen!

Always ask permission to film other people doing things (unless they are just passing by). Don't try to film people secretly!

Before you start filming, make sure to go through the camera set-up checklist!

Camera set-up checklist

1. You are responsible for your camera. No one else can use it. You must take every care.
2. Mount shotgun microphone into input 1.
3. Check sound with the shotgun mic into channel 1(record a test and listen with headphones that the sound is clear without).
4. Set the wireless microphone kit into channel 2 (if needed).
5. Set to auto focus. You can experiment with manual focus.
6. Mount tripod.
7. Set aperture for inside (this controls how much light the camera takes in). If you move outside set aperture again.
8. Check battery power – remember to put on charge overnight.
9. Check some of your clips when you have a break. Can you improve?
10. How much time is left on memory card? Replace memory card when full.

[1] The format of this "challenge" has been adapted from Nigel Meager's (2016) assignment in participatory filmmaking to his students in Cambridge as part of his PhD project at the Faculty of Education, Cambridge University.

Follow-up group discussion questions

1. Please describe what you filmed in your observational film.
2. Why did you choose this subject?
3. What was the most interesting part about the process of making the film?
4. What does the film say about ‘development’ or ‘sustainability’ in your area?
5. Does what you are learning in school about these topics influencing your visions for this place into the future? If so, how?

Appendix J: David MacDougall's observational filmmaking workshop syllabus

(Syllabus by David MacDougall used in his workshop in Jodhpur)[2]

1. **Steadiness Exercise**: This is an exercise you can do during one of the first meetings with the children, after they have been introduced to the basic functions of the camera. Have each of them practice holding the camera steady on some subject. If the hand-grips can be attached, attach them (some cameras have problems with the screw receptacle on the base). You can connect the cameras directly to the TV if you have a long enough cable, so that the others can watch the actual image. Otherwise, record and then play back. This should be a fixed shot—i.e. no camera movement, no zoom. But it is a good time to show them that if the zoom is at the telephoto position, it is much harder to hold the camera steady. (I usually tape the zoom control down in the wide-angle position for the first few weeks of the workshop.) If they want a closer shot, it is much better to move closer than try to shoot at the telephoto end of the zoom. For steadiness, they should learn to hold the camera in a relaxed way, not holding their breath. You can mention that if they brace their body or arms on something—a wall, a table-top, a tree, a doorway—this is a perfectly legitimate way of keeping the camera more steady. (Leave the use of tripods until much later.)

2. **One-Shot Exercise**: Have the children make one single shot of 1-3 minutes length. This can be done during one of the group meetings, or at home if they have now been allowed to take the cameras home. They should look for a subject that they think will be of interest to others, and then hold on it. They should do this on automatic settings so they don't have to worry about focus or exposure. They should not move the camera at all during the shot. They should not use the zoom except, perhaps, to find the initial framing. (I often lock down the zoom control on all the cameras with tape for the first week or two!) They should practice holding the camera steady and level, or if they prefer, rest it on some surface during their shot. They can make any number of trial shots that they wish, but they must choose only one to show to the group. Then, when you look at the shots with the group, you can point out all sorts of differences in subjects, ways of framing, narratives within shots, etc. Very useful way to get them started, and it encourages them to hold the camera steady and actually closely observe something around them.

3. **Three-Shot Exercise:** This time they should make three consecutive shots about the same subject, using different camera positions to show the subject in more detail. Again, no movement of the camera within shots, and no use of zoom. Basically, it's to get them to think about what happens when you put several shots together. How does each shot add something new? Also, it quickly makes them aware of the problem of jump-cuts if they don't shift the camera between shots! Lots to talk about with the kids. Do these short 'films' communicate the same things to everyone? How could they have been done better? Through this "editing in the camera" they will begin to get an idea of building a sequence—thinking of how the shot they are making now relates to the previous one and the one they intend to make next.

4. **Filming a Process:** In this exercise they should choose some simple process, such as making a chapatti, or making an omelet, or changing a bicycle tyre, or whatever they like, so long as it is not too short or too long. They should make a sequence of 5 or 6 shots that tries to show how the process is done. This means analysing its separate steps,and finding a shot and camera position for each step. Again, no camera movement, no zooms. Query: Does their sequence convey to others how the process is done? Could we learn from it how to do it? Why did they change camera position or distance? Does each shot add something new to our understanding? (Kids sometimes don't move the camera, in which case you get jump-cuts: another talking point. What do jump-cuts do?

[2] This is an unedited version of David MacDougall's syllabus. He has given me permission to reproduce it as an appendix to the thesis. I followed this syllabus with minor modifications; the larger departures between MacDougall's and my approach to the film-making workshop were related to the later stages of film production (rather than the initial exercises outlined in this syllabus), as explained in Chapter 3.

5. **Following with the Camera**: This is a simple exercise to introduce them to camera movement, but movement with a purpose. (Beginners like to pan the camera around over every subject—what I call the "garden hose" or "vacuum-cleaner" approach, which assumes that the camera thereby sucks up everything! But of course the result becomes unwatchable.) They should begin by practicing panning shots of somebody walking, just trying to do it smoothly and staying with the subject, ideally keeping a little space in the frame in front of the person walking. Then they can try the technique on other moving subjects—cars, bicycles, etc. The point to be made here is that there should be a good reason to move the camera, i.e. something happening in shot should motivate the movement, not just arbitrary camera movement for its own sake. For this exercise, have them make the shots from one position, not try to follow by walking with the camera, which is a much more difficult technique.

6. **Following a process with the Camera**: This exercise is to get them started moving the camera in more complex ways, but still motivated by the subject. Let them repeat the earlier exercise of filming a process (the same or a different one), or some activity by a person doing a job, this time filming it all within one shot. (The event should therefore not be longer than 2 or 3 minutes.) They should move the camera only to follow the actions of the person or to move in closer to the subject. They should learn to do the latter by moving their own bodies, not by using the zoom. They can now begin to get the feel of moving smoothly with the camera, as an extension of their own body, at the same time learning how to make a sequence-shot, which is essentially editing, not by cutting but by reframing the shot as the event unfolds.

7. **Using the zoom**: They can now begin to use the zoom—but judiciously, to move slightly closer or wider. You can point out to them that the zoom is essentially an artificial optical effect and not the way our eyes actually see. So they should use the zoom primarily to 1) find the frame of their next shot, or 2) for a specific effect. They can try filming another process, this time making use of the zoom.

8. **Filming speech**: During previous exercises they may be getting the ambient sound from the onboard mike on the camera, or the external mike (if you have introduced it by now). In this exercise they should try to film a conversation between two people (ideally, a real conversation, not an acted-out one) so that it is intelligible when played back. They will need to use the external mike, get close enough to the subjects to get good sound, and use the earphones to monitor what they are recording. (By now they should be used to using the headphones whenever they shoot, and they will be well aware of the devastating effect of wind on the mike!) You can point out that the basic rule of thumb is that the closer you are to the subject, the better sound you will get. And even if the filmmaker can understand the speech when they are filming, an audience may not be able to, especially if there is a lot of competing noise.

9. **Controlling exposure and focus**: The children should start getting into the habit of finding a general exposure for a scene (let the camera find this automatically) and then locking the camera on to that exposure. This will eliminate the worst mistake of beginners' video: the aperture suddenly closing down when there's a bright background (usually blackening the faces in the foreground). Have them get the hang of how to do this by making the button on the front of the camera control the exposure (menu setting in the Shooting Set category). Modern cameras handle focus changes pretty well automatically, but you can also introduce them to this manual control if you feel the need.

Note: It's often useful to have the children repeat one or another of the exercises a second time, and in this way correct the mistakes of their first try.

Appendix K: Participatory observational filmmaking workshop equipment

Each camera kit contains (pictures for illustration purposes only):

1 x Canon XA-200 camera

Native 1920 x 1080, 1/2.84" CMOS Sensor, 20x HD Zoom Lens Canon Digic DV 4 Image Processor Dynamic Image Stabilization 3.5" OLED Touch Panel View Screen Manual Camera Controls 2 x XLR with Manual/Auto Audio Levels HDMI, Composite 2 x SD/SDHC/SDXC Media Card Slots Built-in Wi-Fi Connectivity & Control

1 x 64GB Memory card

1 x External "shotgun" microphone

1 x XLR microphone cable

1 x Sennheiser headphones

2 x Camera battery

1 x Camera charger

1 x Camera bag

Appendix L: Participatory observational filmmaking informed consent (India)

विडियो वर्कशॉप में भागीदारी की जानकारी एवं सहमति पत्र

परियोजना का विवरण
विषय: भारत में पर्यावरण शिक्षा
शोधकर्ता- Peter Sutoris (कैम्ब्रिज विश्वविद्यालय, यूके)
शोध अवधि- फरवरी 2017 -अक्टूबर 2017

1. मैं समझता हूँ कि इस परियोजना का उद्देश्य भारत में बच्चों के जीवन और सोच के बारे में ज्ञान को बढ़ाना है. इसके लिए बच्चों और शोधकर्ताओं को मिल कर काम करना होगा. इसके लिए बच्चे अपने स्वयं चुने हुए विषय पर वीडियो रिकॉर्डिंग करेंगे.

2. मैंने स्वेच्छा से इसमें से भाग लेने की सहमति दी है. मैं जब चाहे इस कार्यक्रम को छोड़ सकता हूँ इस बारे में मुझसे कोई सवाल नहीं पूछा जायेगा.

3. मैं समझता हूँ कि वीडियो वर्कशॉप ग्रुप में मुझे अन्य सदस्यों के साथ मिल कर शोध का विषय चुनने के लिए कहा जा सकता है. आपसी सहमति से चुने हुए विषय पर हम अपने आस पास के वातावरण की वीडियो रिकॉर्डिंग करेंगे और अपने अनुभवों के आधार पर मिल कर शोध करेंगे.

4. मैं समझता हूँ कि इस काम के लिए हमें शोधकर्ता और उनके फील्ड सहयोगियों से नियमित रूप से मिलना होगा. वीडियो सामग्री पर चर्चा करनी होगी. परियोजना की पृष्ठभूमि की जानकारी देने के लिए शोधकर्ता परियोजना कार्य की रिकॉर्डिंग कर सकते हैं.

5. मैं जानता हूँ कि वीडियो रिकॉर्डिंग में मैं दिखाई दे सकता हूँ. मेरे बारे में कोई निजी जानकारी प्रकाशित नहीं की जायेगी. इस तरह की जानकारी गोपनीय रखी जायेगी. जो सिर्फ़ इस परियोजना का अध्ययन करना चाहते हैं केवल वे ही इस जानकारी को देख पायेंगे.

6. मैं समझता हूँ कि परियोजना के अंत में कार्यशाला समूह शोधकर्ताओं की मदद से एक फ़ाइनल वीडियो तैयार करेगा जो कि हमारे शोध पर रिपोर्ट की तरह दूसरों को दिखाया जा सकेगा. इसके अलावा कोई भी वीडियो सामग्री जिसे कि मैंने रिकॉर्ड किया है, मेरी अनुमति के बिना न तो प्रकाशित की जायेगी और न ही सार्वजनिक की जाएगी.

7. हमें प्रोफेसर डेविड मैक डॉल (कैम्ब्रिज विश्वविद्यालय, यूके) द्वारा इस परियोजना के बारे में जानकारी दी गई है. किसी भी समय मेरा कोई सवाल या चिंता होगी तो मैं शोधकर्ताओं या ऑस्ट्रेलियन नेशनल समिति से संपर्क करके जानकारी हासिल कर सकता हूँ.

प्रतिभागी का नाम हस्ताक्षर - दिनांक -

मैं अपने बेटे/बेटी के जिसके लिए मैं कानूनी रूप से उत्तरदायी हूँ, इस परियोजना में भाग लेने की सहमति देता हूँ.

नाम और संबंध - हस्ताक्षर - दिनांक -

English translation of the Hindi form from previous page

PROJECT CONSENT FORM

Project Details:
Project title: (De)Politicising Education for Sustainable Development: An Ethnography on the 'Margins'
Researcher: Peter Sutoris
Period of research: January to March 2017

1. I understand that the purpose of this project is to increase knowledge about children's lives and thinking in India today. I also understand that it involves collaboration between children and the researchers to produce this knowledge, and that video recording by the children will be used as the primary research method of the project.

2. I have volunteered to participate in a video workshop group. I have decided to do this of my own free will, and no one is making me do it. I understand that I can withdraw from the group at any time, and no questions will be asked.

3. I understand that as part of a video workshop group I will be asked to join with the others to explore a topic that we have jointly agreed upon. We will use video cameras to record our experiences, our surroundings, and do research on this topic together.

4. I understand that the organisers and their field assistants will conduct the workshop by meeting regularly with the workshop group, helping us to view our video material, and discussing with us the progress of our project. The organisers may also make video recordings of the project activities to show how it is conducted and provide further background information about the project.

5. I understand that although I may be seen in the videos, no personal details about me will be published. Any information of this kind will be confidential and kept only for scholars to see who want to study and write about the project.

6. I understand that toward the end of the project the workshop group, with the help of the researchers, will make a finished video from our material that can be shown to others as a report on our research. None of the other video material I have recorded will be published or made public without my permission.

7. I understand that if I have any questions or concerns about the project at any time, I may contact either of the researchers or the Human Research Ethics Committee at the University of Cambridge, whose contact details have been given to me.

Name of participant: _____ Signed _____ Date_____

I agree to my son/daughter, or the child for whom I have legal responsibility, participating in this project.

Name & relationship: _____ Signed _____ Date_____

Appendix M: Participatory observational filmmaking informed consent (South Africa)

PROJECT CONSENT FORM

Project title: (De)Politicising Education for Sustainable Development: An Ethnography on the 'Margins'

Researcher: Peter Sutoris (Cambridge University), Period of research: May 2 - June 30, 2017

1. I understand that the purpose of this project is to increase knowledge about children's lives and thinking in South Africa today. I also understand that it involves collaboration between children and the researchers to produce this knowledge, and that video recording by the children will be used as the primary research method of the project.

2. I have volunteered to participate in a video workshop group. I have decided to do this of my own free will, and no one is making me do it. I understand that my regular attendance and participation is crucial to the success of the project, and I understand I am expected to attend all workshops. If, however, I decide to withdraw from the project completely, I can do so at any time by telling the researchers.

3. I understand that as part of a video workshop group I will be asked to join with the others to explore a topic that we have jointly agreed upon. We will use video cameras to record our experiences, our surroundings, and do research on this topic together.

4. I understand that the organisers and their field assistants will conduct the workshop by meeting regularly with the workshop group, after school hours from 14:15 to 15:15 at Collingwood Primary School, helping us to view our video material, and discussing with us the progress of our project. The organisers may also make video recordings of the project activities to show how it is conducted and provide further background information about the project.

5. I understand that although I may be seen in the videos, no personal details about me will be published. Any information of this kind will be confidential and kept only for scholars to see who want to study and write about the project.

6. I understand that toward the end of the project the workshop group, with the help of the researchers, will make a finished video from our material that can be shown to others as a report on our research. None of the other video material I have recorded will be published or made public without my permission.

7. I understand that if I have any questions or concerns about the project at any time, I may contact either of the researchers or Humanities and Social Sciences Research Ethics Committee at Cambridge University (+44 1223 766238, cshssethics@cam.ac.uk).

Name of participant: _____ Signed _____ Date_____

I agree to my son/daughter, or the child for whom I have legal responsibility, participating in this project.

Name & relationship: _____ Signed _____ Date_____

Appendix N: Filmmaking equipment indemnity (South Africa)

FILMMAKING EQUIPMENT AGREEMENT

I understand that my child is participating in a video workshop, for which she/he is using camera equipment that she/he is responsible for. I agree to:

- Ensure that my child can safely store the equipment, without the interference of others in the community/household

- Ensure that only my child uses the equipment, as she/he has been trained to do so

- Support my child in participating in this project in a safe way—choosing locations and times for filming that are safe, minimising chances for equipment damage or theft

- Discourage my child from any activities that might put the equipment at risk (such as running with the camera, placing it on unstable surfaces, filming in rain or wet environments)

- Encourage my child to care for the equipment in accordance with the instructions given during the parent meeting on May 23, 2017 (closing the lens cover when camera is not in use, removing the external microphone when camera is not in use, handling all equipment gently, with dry and clean hands, keeping batteries charged, holding the camera firmly)

I acknowledge that I received the following equipment on May 23, 2017:

1 x Sony XA-200 camera
1 x 64GB Memory card
1 x External microphone
1 x Microphone cable
1 x Sennheiser Headphones
2 x Camera battery
1 x Camera charger
1 x Camera bag

I agree to return the equipment on Wednesday, June 28, 2017, in fully working condition.

Signed _____

Date _____

In case of concerns or questions please contact Peter Sutoris, 063 454 6560.

Appendix O: Temporal arc exercise assignment

Exercise prompt

Imagine the environment in which people in [name of local area] lived a hundred years ago. What was different about this environment from the world of today? What was the relationship like between the people and the land on which they lived? Did nature look the same as today? Or was it different? Think about rivers, lakes, oceans, mountains, deserts, trees, animals, plants… What do you think they looked like then? Please draw what you see when you imagine this world.

Now imagine a different kind of environment—one a hundred years from now. What will be different about this environment compared to today? Will the relationship of the people to the land on which they live change at all? How about the natural environment—will it be the same? Please draw what you see when you imagine this world.

Follow-up group discussion questions
(to be used in conjunction with the drawings as elicitation devices)

1. Please describe what you drew in each picture.
2. How is the world in these pictures different from the world today?
3. What do you think is better about the past/future world you drew? What is worse?
4. In which of these worlds (past/present/future) would you prefer to live? Why?
5. Which world is most/least 'developed'? Which one is most/least 'sustainable'? Why?
6. What responsibilities did people have to their environment in the past? In the present? In the future? Do responsibilities change with time?
7. How is what you are learning at school about the environment helping or hindering your visions for a better future?

Appendix P: Mind-mapping exercise assignment

Prompt 1:

Please write down the word 'environment' in the centre of the page. Make a circle around the word. Now, ask yourself what thoughts come up when you think of this word, and write them down, each in a separate 'bubble'. Now write down thoughts you associate with those bubbles and write them down. Keep going, making a "tree of bubbles."

Follow-up questions:

1. Which words do you associate with the environment? Can you share with the group why you think these words are related to the 'environment'?
2. What does the 'environment' mean to you?
3. What is the state of the local environment? Why do you think this is?
4. What does your school teach you about the environment? Do your ideas come from the school or from elsewhere? (If elsewhere, where from?)
5. What do you think is the future of the environment?
6. How can you change the future of the environment?

Prompt 2:

Please draw a simple map of the area where you live. Include your house, roads, any important places (for example, school, church, shop). Now use red colour to highlight areas of your community where you think the environment is in danger, and blue colour for areas in which the environment is taken care of well.

Follow-up questions:

1. Please tell us about the red areas. Why do you think environment is in danger in here?
2. How about the blue areas? What makes you think that the environment is taken care of well here?
3. What does the 'environment' mean to you?
4. What does your school teach you about the environment? Do your ideas come from the school or from elsewhere? (If elsewhere, where from?)
5. What do you think is the future of the environment?
6. How can you change the future of the environment?

Appendix Q: Schooling and activism thematic guide[3]

Theme	Schooling	Activism
Young people's political agency	Conception of? Reflection in pedagogy? In material being taught? Definition of action?	Conception of? Individual activists' beliefs about? Messaging about?
Desirable model of development & Symbolic world orders around development	Single model or allowing for pluri-modality? Definition of model(s)? Relationship to national and global notions of development? Impact of local, national and global history on the model's definition?	Single model or allowing for pluri-modality? Definition of model(s)? Relationship to national and global notions of development? Impact of local, national and global history on the model's definition? Links to transnational activism?
Anthropogenic slow violence	Recognised? Why/why not? By whom? Actively suppressed / replaced by other narratives / actively supported?	Recognised? Why/why not? By whom? Actively suppressed / replaced by other narratives / actively supported?
Ideological unity & Outliers	Any "ideological outliers" among teaching staff? What accounts for this? Any action on their beliefs?	The extent of ideological unity among activists? Evidence of 'extremism'?
The future of the environment	What kind of narrative—fatalistic / pessimistic / optimistic / empowering / disempowering?	What kind of narrative—fatalistic / pessimistic / optimistic / empowering / disempowering?
Learning the state	The extent of critique of / alignment with dominant state interpretation of history, narrative of development, definition of sustainability?	The extent of critique of / alignment with dominant state interpretation of history, narrative of development, definition of sustainability?
Experiences of liminality & advanced marginality	Impact of liminal spaces on schooling's functioning? Ways in which schooling addresses liminality?	Ways in which activists address liminality? Liminality's impact on activist (counter)narratives of state and development?
Historical responsibility	Any evidence of schooling recognizing or promoting historical responsibility / debts to the dead / unborn?	The extent to which intergenerational justice shapes activism? Extent of success in spreading awareness of intergenerational justice?

[3] The purpose of these prompts is to serve as broad guideposts and reminders of main themes while in the field, as explained in Chapter 3. These are neither research questions nor questions for participants, and the list of themes is not exhaustive.

Appendix R: Education and the Anthropocene thematic guide[4]

Theme	Education in the Anthropocene
Visions & phenomenologies of entrapment	Education as a tool of high Anthropocene states to cover up slow violence—how accurate is this? A cynical view?
Visions of positive change & utopian narratives	What gives people (youth, teachers, activists, community members) who are attuned into slow violence hope in the future of education? What does 'educating for the Anthropocene' mean? Constitutive elements? Stories? Narratives? Pedagogies? Examples of 'successful' 'educating for the Anthropocene'? What accounts for those?
Political identity	Redefinition of education – needed in the Anthropocene? If not, how can existing models accommodate the needs of the new era? The schooling—education link: obsolete? Need for new modalities of education? What are they? Who decides and how?
Historical responsibility & Radical historiography	What can education learn from activism about cultivating historical responsibility and action? What can activism learn from schooling? What other ingredients needed for 'educating for the Anthropocene'? How practical are activist notions of social / environmental / intergenerational justice?
The future of the environment & Narratives of change	To what extent do findings paint a hopeful or despairing picture of the future of the environment and education's impact on this? Different actors' agreement or criticism of my conclusions? What is convincing and what is not? Dissonance between my interpretation and participant's phenomenologies of meaning making? The extent of alignment—evidence? Relevance of findings?

[4] The purpose of these prompts is to serve as broad guideposts and reminders of main themes while in the field, as explained in Chapter 3. These are neither research questions nor questions for participants, and the list of themes is not exhaustive.

Appendix S: Stages of analysis

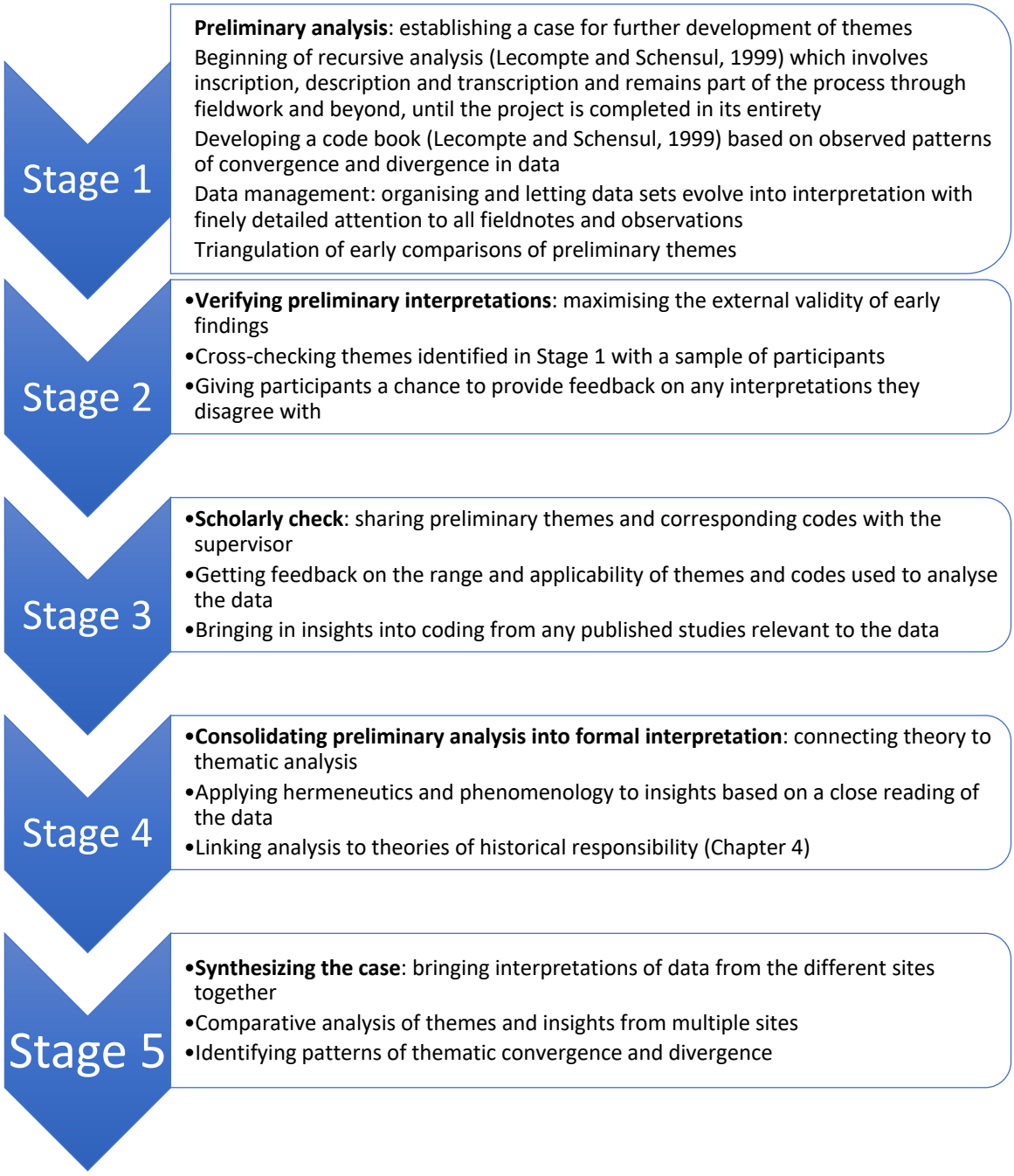

Figure 99: A five-stage framework for data analysis

This five-step approach represents a process of "cooking" the data derived from field observations and interactions. Through recording and managing the data and coding recurring patterns (Stage 1), cross-checking interpretations with stakeholders (Stage 2), incorporating scholarly input and feedback (Stage 3), and linking interpretation to theory (Stages 4-5), this

framework is both rigorous and flexible in allowing the arguments to evolve as the research progresses. It does so by linking operational and theoretical levels in ethnographic research not in a linear way, but by allowing for a back-and-forth between micro-level observations and macro-level analysis.[5] Put differently, the inductive process of mapping data onto interpretation is complemented by deductive "validity checks" that test whether the interpretation speaks to the recorded observations by collecting further data.[6]

[5] This micro-macro scale can be divided into four basic domains—item or fact, unit, pattern and structure (Lecompte and Schensul, 1999, p. 34).

[6] Lecompte and Schensul (1999, p. 98) have identified eight ways through which such patterns in data might emerge from individual observations—declaration, frequency, omission, similarity, co-occurrence, corroboration, sequence and a priori hypothesising. I drew on a number of these, but particularly relied on a priori hypothesising. The three-phased fieldwork structure, which left sufficient time between field visits to reflect on data enabled back-and-forth movement between data collection and re-formulating the working hypotheses about the ethical and transformational effects of ESE in the Anthropocene.